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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : C07K 14/435, C12N 15/12

A1

(11) International Publication Number: WO 00/21991

(43) International Publication Date: 20 April 2000 (20.04.00)

(21) International Application Number: PCT/US99/24206

(22) International Filing Date: 15 October 1999 (15.10.99)

(30) Priority Data:
60/104,436 15 October 1998 (15.10.98) US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application
US 60/104,436 (CIP)
Filed on 15 October 1998 (15.10.98)

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(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

(57) Abstract

Secreted expressed sequence tags (sESTs) isolated from a variety of human tissue sources are provided.

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SECRETED EXPRESSED SEQUENCE TAGS (sESTs)

FIELD OF THE INVENTION

The present invention provides novel polynucleotides which are expressed sequence tags (ESTs) for secreted proteins.

BACKGROUND OF THE INVENTION

Gargantuan efforts have been employed by various investigational projects to randomly sequence portions of naturally-occurring cDNAs. The rationale behind this approach to identification and sequencing genes is founded in two basic principles: (1) that transcribed cDNAs represent the product of the most important genes, namely those that are actually expressed *in vivo*, and (2) that efforts to sequence genes and other portions of the genome of target organisms which are not actually expressed wastes substantial effort on areas not likely to yield genetic information of therapeutic importance. Thus, the high-throughput sequencing efforts focus on only those portions of the genome which are expressed. The randomly produced cDNA sequences represent "expressed sequence tags" or "ESTs", which identify and can be used as probes for the longer, full-length cDNA or genomic sequence from which they were transcribed.

Although this "shortcut" approach to genomic sequencing presents savings of effort compared to sequencing of the complete genome, it still produced a vast array of ESTs which may not be directly useful as protein therapeutics. To date, the majority of protein-related drug discovery has focused on the use of secreted proteins to produce a desired therapeutic effect. Since the EST approach theoretically identifies all expressed proteins, it produces an EST library which contains a mixture of secreted proteins (such as hormones, cytokines and receptors) and non-secreted proteins (such as, for example, metabolic enzymes and cellular structural proteins), without identifying which ESTs correspond to proteins falling into either category. As a result, these methods are not optimally tailored to the needs of investigators searching for secreted proteins because they must separate the secreted "wheat" from the non-secreted "chaff", wasting effort and resources in the process.

Co-assigned U.S. Patent No. 5,536,637, which is incorporated herein by reference, provides methods for focusing genomic sequencing efforts on sequences encoding the secreted proteins which are of most interest for identification of protein therapeutics. The '637 patent discloses a "signal sequence trap" which selectively identifies ESTs for secreted proteins, namely "secreted expressed sequence tags" or "sESTs". It is to these sESTs that the present invention is directed.

SUMMARY OF THE INVENTION

The present invention provides for sESTs isolated from a variety of human RNA/cDNA sources.

In preferred embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136,

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or a complement of said sequence.

In other embodiments, the present invention provides an isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID

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or a complement of said sequence.

In further embodiments, the present invention provides an isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ

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or a complement of said sequence.

In yet other embodiments, the present invention provides an isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID

NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID NO:274, SEQ ID NO:275, SEQ ID NO:276, SEQ ID NO:277, SEQ ID NO:278, SEQ ID NO:279, SEQ ID NO:280, SEQ ID NO:281, SEQ ID NO:282, SEQ ID NO:283, SEQ ID NO:284, SEQ ID NO:285, SEQ ID NO:286, SEQ ID NO:287, SEQ ID NO:288, SEQ ID NO:289, SEQ ID NO:290, SEQ ID NO:291, SEQ ID NO:292, SEQ ID NO:293, SEQ ID NO:294, SEQ ID NO:295, SEQ ID NO:296, SEQ ID NO:297, SEQ ID NO:298, SEQ ID NO:299, SEQ ID NO:300, SEQ ID NO:301, SEQ ID NO:302, SEQ ID

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NO:2013, SEQ ID NO:2014, SEQ ID NO:2015, SEQ ID NO:2016, SEQ ID NO:2017, SEQ ID NO:2018, SEQ ID NO:2019, SEQ ID NO:2020, SEQ ID NO:2021, SEQ ID NO:2022, SEQ ID NO:2023, SEQ ID NO:2024, SEQ ID NO:2025, SEQ ID NO:2026, SEQ ID NO:2027, SEQ ID NO:2028, SEQ ID NO:2029, SEQ ID NO:2030, SEQ ID NO:2031, SEQ ID NO:2032, SEQ ID NO:2033, SEQ ID NO:2034, SEQ ID NO:2035, SEQ ID NO:2036, SEQ ID NO:2037, SEQ ID NO:2038, SEQ ID NO:2039, SEQ ID NO:2040, SEQ ID NO:2041, SEQ ID NO:2042, SEQ ID NO:2043, SEQ ID NO:2044, SEQ ID NO:2045, SEQ ID NO:2046, SEQ ID NO:2047, SEQ ID NO:2048, SEQ ID NO:2049, SEQ ID NO:2050, SEQ ID NO:2051, SEQ ID NO:2052, SEQ ID NO:2053, SEQ ID NO:2054, SEQ ID NO:2055, SEQ ID NO:2056, SEQ ID NO:2057, SEQ ID NO:2058, SEQ ID NO:2059, SEQ ID NO:2060, SEQ ID NO:2061, SEQ ID NO:2062, SEQ ID NO:2063, SEQ ID NO:2064, SEQ ID NO:2065, SEQ ID NO:2066, SEQ ID NO:2067, SEQ ID NO:2068, SEQ ID NO:2069, SEQ ID NO:2070, SEQ ID NO:2071, SEQ ID NO:2072, SEQ ID NO:2073, SEQ ID NO:2074, SEQ ID NO:2075, SEQ ID NO:2076, SEQ ID NO:2077, SEQ ID NO:2078, SEQ ID NO:2079, SEQ ID NO:2080, SEQ ID NO:2081, SEQ ID NO:2082, SEQ ID NO:2083, SEQ ID NO:2084, SEQ ID NO:2085, SEQ ID NO:2086, SEQ ID NO:2087, SEQ ID NO:2088, SEQ ID NO:2089, SEQ ID NO:2090, SEQ ID NO:2091, SEQ ID NO:2092, SEQ ID NO:2093, SEQ ID NO:2094, SEQ ID NO:2095, SEQ ID NO:2096, SEQ ID NO:2097, SEQ ID NO:2098, SEQ ID NO:2099, SEQ ID NO:2100, SEQ ID NO:2101, SEQ ID NO:2102, SEQ ID NO:2103, SEQ ID NO:2104, SEQ ID NO:2105, SEQ ID NO:2106, SEQ ID NO:2107, SEQ ID NO:2108, SEQ ID NO:2109, SEQ ID NO:2110, SEQ ID NO:2111, SEQ ID NO:2112, SEQ ID NO:2113, SEQ ID NO:2114, SEQ ID NO:2115, SEQ ID NO:2116, SEQ ID NO:2117, SEQ ID NO:2118, SEQ ID NO:2119, SEQ ID NO:2120, SEQ ID NO:2121, SEQ ID NO:2122, SEQ ID NO:2123, SEQ ID NO:2124, SEQ ID NO:2125, SEQ ID NO:2126, SEQ ID NO:2127, SEQ ID NO:2128, SEQ ID NO:2129, SEQ ID NO:2130, SEQ ID NO:2131, SEQ ID NO:2132, SEQ ID NO:2133, SEQ ID NO:2134, SEQ ID NO:2135, SEQ ID NO:2136, SEQ ID NO:2137, SEQ ID NO:2138, SEQ ID NO:2139, SEQ ID NO:2140, SEQ ID NO:2141, SEQ ID NO:2142, SEQ ID NO:2143, SEQ ID NO:2144, SEQ ID NO:2145, SEQ ID NO:2146, SEQ ID NO:2147, SEQ ID NO:2148, SEQ ID

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NO:2285, SEQ ID NO:2286, SEQ ID NO:2287, SEQ ID NO:2288, SEQ ID NO:2289, SEQ ID NO:2290, SEQ ID NO:2291, SEQ ID NO:2292, SEQ ID NO:2293, SEQ ID NO:2294, SEQ ID NO:2295, SEQ ID NO:2296, SEQ ID NO:2297, SEQ ID NO:2298, SEQ ID NO:2299, SEQ ID NO:2300, SEQ ID NO:2301, SEQ ID NO:2302, SEQ ID NO:2303, SEQ ID NO:2304, SEQ ID NO:2305, SEQ ID NO:2306, SEQ ID NO:2307, SEQ ID NO:2308, SEQ ID NO:2309, SEQ ID NO:2310, SEQ ID NO:2311, SEQ ID NO:2312, SEQ ID NO:2313, SEQ ID NO:2314, SEQ ID NO:2315, SEQ ID NO:2316, SEQ ID NO:2317, SEQ ID NO:2318, SEQ ID NO:2319, SEQ ID NO:2320, SEQ ID NO:2321, SEQ ID NO:2322, SEQ ID NO:2323, SEQ ID NO:2324, SEQ ID NO:2325, SEQ ID NO:2326, SEQ ID NO:2327, SEQ ID NO:2328, SEQ ID NO:2329, SEQ ID NO:2330, SEQ ID NO:2331, SEQ ID NO:2332, SEQ ID NO:2333, SEQ ID NO:2334, SEQ ID NO:2335, SEQ ID NO:2336, SEQ ID NO:2337, SEQ ID NO:2338, SEQ ID NO:2339, SEQ ID NO:2340, SEQ ID NO:2341, SEQ ID NO:2342, SEQ ID NO:2343, SEQ ID NO:2344, SEQ ID NO:2345, SEQ ID NO:2346, SEQ ID NO:2347, SEQ ID NO:2348, SEQ ID NO:2349, SEQ ID NO:2350, SEQ ID NO:2351, SEQ ID NO:2352, SEQ ID NO:2353, SEQ ID NO:2354, SEQ ID NO:2355, SEQ ID NO:2356, SEQ ID NO:2357, SEQ ID NO:2358, SEQ ID NO:2359, SEQ ID NO:2360, SEQ ID NO:2361, SEQ ID NO:2362, SEQ ID NO:2363, SEQ ID NO:2364, SEQ ID NO:2365, SEQ ID NO:2366, SEQ ID NO:2367, SEQ ID NO:2368, SEQ ID NO:2369, SEQ ID NO:2370, SEQ ID NO:2371, SEQ ID NO:2372, SEQ ID NO:2373, SEQ ID NO:2374, SEQ ID NO:2375, SEQ ID NO:2376, SEQ ID NO:2377, SEQ ID NO:2378, SEQ ID NO:2379, SEQ ID NO:2380, SEQ ID NO:2381, SEQ ID NO:2382, SEQ ID NO:2383, SEQ ID NO:2384, SEQ ID NO:2385, SEQ ID NO:2386, SEQ ID NO:2387, SEQ ID NO:2388, SEQ ID NO:2389, SEQ ID NO:2390, SEQ ID NO:2391, SEQ ID NO:2392, SEQ ID NO:2393, SEQ ID NO:2394, SEQ ID NO:2395, SEQ ID NO:2396, SEQ ID NO:2397, SEQ ID NO:2398, SEQ ID NO:2399, SEQ ID NO:2400, SEQ ID NO:2401, SEQ ID NO:2402, SEQ ID NO:2403, SEQ ID NO:2404, SEQ ID NO:2405, SEQ ID NO:2406, SEQ ID NO:2407, SEQ ID NO:2408, SEQ ID NO:2409, SEQ ID NO:2410, SEQ ID NO:2411, SEQ ID NO:2412, SEQ ID NO:2413, SEQ ID NO:2414, SEQ ID NO:2415, SEQ ID NO:2416, SEQ ID NO:2417, SEQ ID NO:2418, SEQ ID NO:2419, SEQ ID NO:2420, SEQ ID

NO:2421, SEQ ID NO:2422, SEQ ID NO:2423, SEQ ID NO:2424, SEQ ID NO:2425, SEQ ID NO:2426, SEQ ID NO:2427, SEQ ID NO:2428, SEQ ID NO:2429, SEQ ID NO:2430, SEQ ID NO:2431, SEQ ID NO:2432, SEQ ID NO:2433, SEQ ID NO:2434, SEQ ID NO:2435, SEQ ID NO:2436, SEQ ID NO:2437, SEQ ID NO:2438, SEQ ID NO:2439, SEQ ID NO:2440, SEQ ID NO:2441, SEQ ID NO:2442, SEQ ID NO:2443, SEQ ID NO:2444, SEQ ID NO:2445, SEQ ID NO:2446, SEQ ID NO:2447, SEQ ID NO:2448, SEQ ID NO:2449, SEQ ID NO:2450, SEQ ID NO:2451, SEQ ID NO:2452, SEQ ID NO:2453, SEQ ID NO:2454, SEQ ID NO:2455, SEQ ID NO:2456, SEQ ID NO:2457, SEQ ID NO:2458, SEQ ID NO:2459, SEQ ID NO:2460, SEQ ID NO:2461, SEQ ID NO:2462, SEQ ID NO:2463, SEQ ID NO:2464, SEQ ID NO:2465, SEQ ID NO:2466, SEQ ID NO:2467, SEQ ID NO:2468, SEQ ID NO:2469, SEQ ID NO:2470, SEQ ID NO:2471, SEQ ID NO:2472, SEQ ID NO:2473, SEQ ID NO:2474, SEQ ID NO:2475, SEQ ID NO:2476, SEQ ID NO:2477, SEQ ID NO:2478, SEQ ID NO:2479, SEQ ID NO:2480, SEQ ID NO:2481, SEQ ID NO:2482, SEQ ID NO:2483, SEQ ID NO:2484, SEQ ID NO:2485, SEQ ID NO:2486, SEQ ID NO:2487, SEQ ID NO:2488, SEQ ID NO:2489, SEQ ID NO:2490, SEQ ID NO:2491, SEQ ID NO:2492, SEQ ID NO:2493, SEQ ID NO:2494, SEQ ID NO:2495, SEQ ID NO:2496, SEQ ID NO:2497, SEQ ID NO:2498, SEQ ID NO:2499, and SEQ ID NO:2500;

or to a complement of said sequence.

The invention also provides for proteins encoded by the above-described polynucleotides. In certain preferred embodiments, the polynucleotide is operably linked to an expression control sequence. The invention also provides a host cell, including bacterial, yeast, insect and mammalian cells, transformed with such polynucleotide compositions. Also provided by the present invention are organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein.

Processes are also provided for producing a protein, which comprise:

(a) growing a culture of the host cell transformed with such polynucleotide compositions in a suitable culture medium; and

(b) purifying the protein from the culture.

The protein produced according to such methods is also provided by the present invention.

Protein compositions of the present invention may further comprise a pharmaceutically acceptable carrier. Compositions comprising an antibody which specifically reacts with such protein are also provided by the present invention.

Methods are also provided for preventing, treating or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of a composition comprising a protein of the present invention, and/or a polynucleotide of the present invention, and a pharmaceutically acceptable carrier.

DETAILED DESCRIPTION

The nucleotide sequences of the sESTs of the present invention are reported in the Sequence Listing below. Table 2 lists the "Clone ID Nos." assigned by applicants to each SEQ ID NO: in the Sequence Listing.

Table 2

Each pair of entries in this table consists of the SEQ ID NO (e.g., 1, 2, etc.) followed by the Clone ID No. for such sequence (e.g., AA239, AA249, etc.).

1	AA239	18	AC365	35	AE327	52	AE479
2	AA249	19	AC384	36	AE358	53	AE502
3	AA25	20	AC407	37	AE38	54	AE503
4	AA292	21	AD599	38	AE382	55	AE520
5	AA306	22	AD647	39	AE396	56	AE545
6	AA336	23	AD655	40	AE399	57	AE549
7	AA34	24	AD803	41	AE401	58	AE57
8	AA342	25	AE103	42	AE402	59	AE570
9	AA356	26	AE210	43	AE403	60	AE595
10	AA360	27	AE238	44	AE417	61	AE601
11	AA38	28	AE252	45	AE424	62	AE606
12	AA43	29	AE289	46	AE435	63	AE610
13	AA50	30	AE290	47	AE440	64	AE64
14	AA64	31	AE302	48	AE443	65	AE648
15	AC15	32	AE303	49	AE445	66	AE660
16	AC334	33	AE314	50	AE468	67	AE674
17	AC349	34	AE319	51	AE471	68	AE693

69	AE696	106	AH556	143	AM198	180	AT205
70	AE90	107	AH601	144	AM260	181	AT211
71	AF18	108	AH604	145	AM262	182	AT212
72	AF217	109	AH612	146	AM292	183	AT215
73	AF221	110	AH622	147	AM338	184	AT216
74	AF271	111	AH63	148	AM340	185	AT368
75	AF276	112	AH652	149	AM341	186	AU112
76	AF28	113	AH666	150	AM483	187	AU117
77	AF42	114	AH8	151	AM57	188	AV10
78	AF49	115	AJ102	152	AM574	189	AV110
79	AF51	116	AJ118	153	AM58	190	AV117
80	AF52	117	AJ149	154	AM690	191	AV129
81	AF54	118	AJ151	155	AM691	192	AV141
82	AF85	119	AJ75	156	AM699	193	AV152
83	AG107	120	AJ88	157	AM748	194	AV156
84	AG121	121	AK296	158	AM764	195	AV179
85	AG175	122	AK384	159	AM776	196	AV189
86	AG237	123	AK421	160	AM830	197	AV22
87	AG99	124	AK489	161	AM87	198	AV227
88	AH106	125	AK492	162	AM880	199	AV30
89	AH123	126	AK533	163	AM900	200	AV6
90	AH144	127	AK554	164	AM905	201	AV66
91	AH191	128	AK595	165	AM916	202	AV7
92	AH196	129	AK600	166	AM946	203	AV92
93	AH230	130	AK672	167	AM964	204	AW242
94	AH239	131	AK698	168	AN89	205	AX2
95	AH356	132	AK759	169	AO90	206	AY123
96	AH372	133	AM1019	170	AP132	207	AY177
97	AH38	134	AM1044	171	AP240	208	AY225
98	AH383	135	AM1057	172	AP244	209	AY254
99	AH389	136	AM1085	173	AQ51	210	AY322
100	AH406	137	AM1111	174	AR260	211	AY344
101	AH418	138	AM1122	175	AS286	212	AY412
102	AH51	139	AM1131	176	AS32	213	AY434
103	AH547	140	AM157	177	AS34	214	AY448
104	AH55	141	AM184	178	AS98	215	AY97
105	AH555	142	AM185	179	AT106	216	AZ278

217	BB8	254	BD368	291	BV20	328	D137
218	BB9	255	BD451	292	BV223	329	D147
219	BC128	256	BD453	293	BZ398	330	D24
220	BC130	257	BD471	294	BZ595	331	DD23
221	BC132	258	BD54	295	C282	332	DD239
222	BC170	259	BD81	296	C545	333	DD254
223	BC226	260	BG46	297	C662	334	DD344
224	BC246	261	BG52	298	CA1	335	DD523
225	BC253	262	BG54	299	CA100	336	DD70
226	BC262	263	BG65	300	CA104	337	DD77
227	BC272	264	BG66	301	CA105	338	DG288
228	BC294	265	BG68	302	CA106	339	DG319
229	BC295	266	BG77	303	CA114	340	DH1147
230	BC300	267	BG78	304	CA119	341	DI396
231	BC303	268	BH126	305	CA127	342	DL486
232	BC306	269	BH212	306	CA133	343	DO441
233	BC308	270	BH349	307	CA15	344	DP101
234	BC317	271	BI101	308	CA157	345	DP102
235	BC351	272	BJ35	309	CA165	346	DP105
236	BC370	273	BJ65	310	CA173	347	DP106
237	BC390	274	BL150	311	CA176	348	DP109
238	BC409	275	BN13	312	CA180	349	DP111
239	BC410	276	BN185	313	CA183	350	DP120
240	BC420	277	BN203	314	CA3	351	DP122
241	BC430	278	BN34	315	CA41	352	DP127
242	BC456	279	BN381	316	CA44	353	DP131
243	BC457	280	BN73	317	CA51	354	DP135
244	BC467	281	BO13	318	CA57	355	DP140
245	BC471	282	BO342	319	CA79	356	DP147
246	BC473	283	BO356	320	CA94	357	DP175
247	BC72	284	BO41	321	CC53	358	DP180
248	BC75	285	BO541	322	CJ210	359	DP97
249	BD112	286	BP116	323	CJ384	360	DU499
250	BD249	287	BP578	324	CL164	361	DY39
251	BD283	288	BP582	325	CR1187	362	DY691
252	BD306	289	BP822	326	CR552	363	DZ23
253	BD353	290	BT138	327	D130	364	EF109

365	EK610	402	GL404	439	HS11	476	IS114
366	EM161	403	GL417	440	HS110	477	IS20
367	EN426	404	GL428	441	HS154	478	IS337
368	FE109	405	GL44	442	HS165	479	IS475
369	FH109	406	GL50	443	HS177	480	IS566
370	FQ712	407	GW159	444	HS25	481	IS589
371	FT124	408	GW263	445	HS278	482	IT213
372	FT214	409	GW38	446	HS34	483	IT217
373	FT222	410	GW48	447	HS351	484	IT240
374	FT318	411	GW75	448	HS413	485	IT250
375	FT358	412	GZ440	449	HS432	486	IT263
376	FT58	413	H1138	450	HS460	487	IT63
377	FT62	414	H118	451	HS465	488	IT98
378	FU149	415	H1305	452	HS470	489	IU103
379	FU171	416	H1317	453	HS66	490	IU176
380	FU284	417	H1419	454	HS662	491	IU190
381	FU309	418	H1428	455	HV233	492	IU202
382	FU344	419	H1496	456	HX92	493	IU23
383	FZ150	420	H206	457	IB60	494	IU61
384	G81	421	H237	458	IE42	495	IU63
385	GA348	422	H298	459	IF338	496	IU88
386	GC471	423	H31	460	IF50	497	IW47
387	GC479	424	H318	461	IF605	498	IW66
388	GE444	425	H455	462	IJ1129	499	IW73
389	GJ217	426	H617	463	IJ1193	500	IW79
390	GJ270	427	H83	464	IJ1442	501	IW90
391	GJ286	428	H857	465	IJ1542	502	IX118
392	GL106	429	H863	466	IJ181	503	IX125
393	GL110	430	H905	467	IJ226	504	IX62
394	GL140	431	H963	468	IK125	505	IY40
395	GL15	432	HB1142	469	IK418	506	IY47
396	GL278	433	HB1209	470	IK58	507	IY58
397	GL294	434	HE153	471	IK93	508	IZ47
398	GL32	435	HE212	472	IR162	509	J218
399	GL323	436	HL458	473	IR30	510	J59
400	GL330	437	HR211	474	IR31	511	JA64
401	GL366	438	HS100	475	IR70	512	JB17

513	JF15	550	K113	587	K39	624	KB57
514	JF64	551	K115	588	K40	625	KG2
515	JF76	552	K122	589	K409	626	KH13
516	JK39	553	K139	590	K417	627	KI195
517	JK45	554	K148	591	K421	628	KI253
518	JL55	555	K155	592	K422	629	KI362
519	JM33	556	K168	593	K426	630	KI493
520	JM49	557	K176	594	K433	631	KJ1
521	JM64	558	K178	595	K446	632	KJ10
522	JM75	559	K18	596	K464	633	KJ120
523	JN33	560	K213	597	K483	634	KJ124
524	JN85	561	K22	598	K488	635	KJ131
525	JQ1	562	K227	599	K490	636	KJ141
526	JQ29	563	K232	600	K51	637	KJ142
527	JS7	564	K233	601	K511	638	KJ19
528	JT113	565	K235	602	K524	639	KJ190
529	JT118	566	K240	603	K525	640	KJ215
530	JT170	567	K254	604	K529	641	KJ218
531	JT6	568	K255	605	K568	642	KJ231
532	JT61	569	K264	606	K60	643	KJ247
533	JT62	570	K271	607	K619	644	KJ258
534	JT65	571	K280	608	K640	645	KJ320
535	JT77	572	K281	609	K67	646	KJ321
536	JW117	573	K285	610	K71	647	KJ360
537	JW21	574	K289	611	K80	648	KJ41
538	JW35	575	K294	612	K82	649	KJ46
539	JW48	576	K30	613	KA105	650	KJ469
540	JW91	577	K302	614	KA107	651	KJ480
541	JY112	578	K314	615	KA108	652	KJ539
542	JY162	579	K32	616	KA113	653	KJ600
543	JY2	580	K322	617	KA115	654	KJ611
544	JY6	581	K330	618	KA3	655	KJ623
545	JY61	582	K361	619	KA46	656	KJ63
546	JZ13	583	K363	620	KA97	657	KJ664
547	JZ33	584	K368	621	KB137	658	KJ689
548	JZ95	585	K370	622	KB2	659	KJ699
549	K10	586	K38	623	KB49	660	KJ713

661	KJ723	698	KN606	735	KX136	772	LE75
662	KJ727	699	KN628	736	KX170	773	LF191
663	KJ737	700	KN678	737	KY2	774	LF250
664	KJ740	701	KO148	738	KY49	775	LF268
665	KJ748	702	KO174	739	KZ135	776	LF273
666	KJ772	703	KO179	740	KZ165	777	LF307
667	KJ777	704	KO258	741	KZ208	778	LF341
668	KJ78	705	KO266	742	KZ288	779	LF378
669	KJ793	706	KO319	743	KZ312	780	LF400
670	KJ8	707	KO332	744	KZ35	781	LF416
671	KJ804	708	KO481	745	KZ46	782	LF470
672	KJ807	709	KO50	746	KZ56	783	LF56
673	KJ82	710	KO508	747	L102	784	LF6
674	KJ853	711	KO575	748	L106	785	LG101
675	KJ870	712	KP86	749	L108	786	LG128
676	KJ876	713	KQ27	750	L12	787	LG151
677	KJ879	714	KR169	751	L129	788	LG155
678	KJ96	715	KR190	752	L137	789	LG174
679	KL109	716	KR221	753	L153	790	LG189
680	KL118	717	KR240	754	L161	791	LG237
681	KL823	718	KR299	755	L189	792	LG26
682	KL883	719	KR38	756	L195	793	LG264
683	KL903	720	KS20	757	L196	794	LG280
684	KM14	721	KS40	758	L198	795	LG322
685	KM157	722	KS41	759	L2	796	LG64
686	KM225	723	KS47	760	L200	797	LH156
687	KM288	724	KS71	761	L202	798	LH376
688	KM309	725	KT25	762	L209	799	LI210
689	KN1010	726	KT61	763	L238	800	LI302
690	KN1146	727	KU84	764	L250	801	LI307
691	KN157	728	KU95	765	L256	802	LI392
692	KN159	729	KV10	766	L3	803	LI506
693	KN436	730	KV16	767	L5	804	LI515
694	KN439	731	KV29	768	L64	805	LI674
695	KN446	732	KW27	769	L69	806	LI684
696	KN487	733	KW28	770	LC85	807	LI705
697	KN498	734	KW44	771	LE10	808	LI767

809	LJ103	846	LR190	883	LS44	920	LU556
810	LJ119	847	LR204	884	LS45	921	LU558
811	LJ12	848	LR220	885	LS50	922	LU580
812	LJ145	849	LR260	886	LS62	923	LU697
813	LJ290	850	LR286	887	LS87	924	LU724
814	LK17	851	LR315	888	LS9	925	LU789
815	LK57	852	LR32	889	LS98	926	LU810
816	LL22	853	LR323	890	LT195	927	LU811
817	LL89	854	LR337	891	LT255	928	LU820
818	LN86	855	LR347	892	LT28	929	LU864
819	LO220	856	LR360	893	LT285	930	LV118
820	LO292	857	LR381	894	LT289	931	LV157
821	LO311	858	LR398	895	LT321	932	LV2
822	LO32	859	LR406	896	LT369	933	LV209
823	LP118	860	LR432	897	LT380	934	LV253
824	LP197	861	LR447	898	LT384	935	LV292
825	LP274	862	LR561	899	LT386	936	LV296
826	LP391	863	LR568	900	LT390	937	LV310
827	LP436	864	LR57	901	LT403	938	LV317
828	LP474	865	LR596	902	LT410	939	LV331
829	LP529	866	LR607	903	LT48	940	LV371
830	LP547	867	LR612	904	LT595	941	LV376
831	LP562	868	LR618	905	LT620	942	LV388
832	LP572	869	LR636	906	LT634	943	LV435
833	LP574	870	LR76	907	LT646	944	LV449
834	LP584	871	LR79	908	LT686	945	LV462
835	LP585	872	LR95	909	LT96	946	LV505
836	LP615	873	LS101	910	LU127	947	LV506
837	LP631	874	LS120	911	LU164	948	LV528
838	LP667	875	LS121	912	LU211	949	LV555
839	LP672	876	LS123	913	LU309	950	LV621
840	LP675	877	LS139	914	LU38	951	LV85
841	LP97	878	LS150	915	LU380	952	LV98
842	LR110	879	LS16	916	LU399	953	LW1
843	LR128	880	LS18	917	LU460	954	LW104
844	LR141	881	LS203	918	LU480	955	LW113
845	LR170	882	LS36	919	LU524	956	LW123

957	LW126	994	M66	1031	MC361	1068	ME252
958	LW145	995	M8	1032	MC367	1069	ME253
959	LW150	996	M83	1033	MC376	1070	ME258
960	LW59	997	M93	1034	MC413	1071	ME387
961	LW63	998	M95	1035	MC69	1072	ME44
962	LW97	999	MA101	1036	MC83	1073	ME456
963	LX106	1000	MA122	1037	MC88	1074	ME495
964	LX107	1001	MA130	1038	MC96	1075	ME505
965	LX111	1002	MA158	1039	MD112	1076	ME514
966	LX115	1003	MA172	1040	MD124	1077	ME519
967	LX121	1004	MA174	1041	MD167	1078	ME569
968	LX128	1005	MA232	1042	MD169	1079	ME596
969	LX135	1006	MA270	1043	MD170	1080	ME614
970	LX138	1007	MB261	1044	MD171	1081	ME691
971	LX155	1008	MB340	1045	MD178	1082	ME709
972	LX174	1009	MB365	1046	MD183	1083	ME721
973	LX176	1010	MB85	1047	MD300	1084	ME744
974	LX18	1011	MB88	1048	MD303	1085	ME756
975	LX226	1012	MC11	1049	MD312	1086	ME771
976	LX270	1013	MC125	1050	MD363	1087	ME787
977	LX308	1014	MC137	1051	MD39	1088	ME796
978	LX327	1015	MC14	1052	MD437	1089	ME804
979	LX344	1016	MC155	1053	MD467	1090	MF135
980	LX358	1017	MC180	1054	MD500	1091	MG101
981	LX59	1018	MC199	1055	MD521	1092	MG105
982	LX73	1019	MC252	1056	MD536	1093	MG141
983	LZ143	1020	MC286	1057	MD54	1094	MG168
984	LZ290	1021	MC293	1058	MD544	1095	MG184
985	LZ62	1022	MC294	1059	MD649	1096	MG241
986	LZ63	1023	MC298	1060	MD708	1097	MG28
987	M143	1024	MC300	1061	MD729	1098	MG417
988	M171	1025	MC301	1062	MD80	1099	MG434
989	M174	1026	MC305	1063	ME116	1100	MG442
990	M252	1027	MC308	1064	ME233	1101	MG491
991	M281	1028	MC317	1065	ME236	1102	MG582
992	M343	1029	MC336	1066	ME237	1103	MG583
993	M57	1030	MC353	1067	ME247	1104	MG86

1105	MH147	1142	MI379	1179	MK220	1216	ML74
1106	MH218	1143	MI381	1180	MK242	1217	ML90
1107	MH250	1144	MI395	1181	MK252	1218	ML95
1108	MH255	1145	MI411	1182	MK262	1219	ML97
1109	MH256	1146	MI443	1183	MK28	1220	MM106
1110	MH270	1147	MI450	1184	MK288	1221	MM131
1111	MH277	1148	MI458	1185	MK309	1222	MM152
1112	MH304	1149	MI478	1186	MK333	1223	MM165
1113	MH318	1150	MI479	1187	MK337	1224	MM167
1114	MH404	1151	MI50	1188	MK34	1225	MM193
1115	MH429	1152	MI561	1189	MK377	1226	MM197
1116	MH449	1153	MI565	1190	ML10	1227	MM308
1117	MH455	1154	MI578	1191	ML118	1228	MM367
1118	MH498	1155	MI590	1192	ML133	1229	MM374
1119	MH51	1156	MJ116	1193	ML145	1230	MM397
1120	MH613	1157	MJ166	1194	ML19	1231	MM408
1121	MH617	1158	MJ197	1195	ML212	1232	MM417
1122	MH68	1159	MJ301	1196	ML227	1233	MM422
1123	MH703	1160	MJ310	1197	ML234	1234	MM426
1124	MH730	1161	MJ312	1198	ML235	1235	MM453
1125	MH753	1162	MJ343	1199	ML236	1236	MM459
1126	MH86	1163	MJ36	1200	ML243	1237	MM52
1127	MI102	1164	MJ403	1201	ML246	1238	MM543
1128	MI138	1165	MJ411	1202	ML265	1239	MM561
1129	MI15	1166	MJ459	1203	ML278	1240	MM562
1130	MI213	1167	MJ462	1204	ML285	1241	MM567
1131	MI226	1168	MJ476	1205	ML40	1242	MM658
1132	MI232	1169	MJ48	1206	ML460	1243	MM670
1133	MI276	1170	MJ80	1207	ML468	1244	MM72
1134	MI317	1171	MJ94	1208	ML477	1245	MN186
1135	MI318	1172	MJ99	1209	ML546	1246	MN219
1136	MI327	1173	MK106	1210	ML550	1247	MN265
1137	MI330	1174	MK112	1211	ML551	1248	MN275
1138	MI350	1175	MK135	1212	ML564	1249	MN296
1139	MI354	1176	MK147	1213	ML601	1250	MN297
1140	MI356	1177	MK2	1214	ML616	1251	MN320
1141	MI361	1178	MK205	1215	ML636	1252	MN341

1253	MN356	1290	MT205	1327	MY32	1364	NA1035
1254	MN427	1291	MT218	1328	MY340	1365	NA1036
1255	MN450	1292	MT24	1329	MY91	1366	NA1039
1256	MN476	1293	MT50	1330	MZ101	1367	NA1071
1257	MN501	1294	MT54	1331	MZ330	1368	NA1076
1258	MN504	1295	MT74	1332	MZ344	1369	NA1083
1259	MN521	1296	MT88	1333	MZ364	1370	NA1089
1260	MN526	1297	MT91	1334	MZ374	1371	NA1095
1261	MN539	1298	MU114	1335	MZ436	1372	NA1102
1262	MN545	1299	MU124	1336	MZ445	1373	NA1105
1263	MN550	1300	MU162	1337	MZ469	1374	NA1119
1264	MN562	1301	MU173	1338	MZ527	1375	NA1120
1265	MP13	1302	MU40	1339	MZ528	1376	NA1142
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1267	MP22	1304	MU88	1341	MZ65	1378	NA1149
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1269	MP31	1306	MX78	1343	N145	1380	NA117
1270	MP34	1307	MY108	1344	N154	1381	NA118
1271	MP36	1308	MY111	1345	N158	1382	NA12
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1274	MP5	1311	MY125	1348	N209	1385	NA1240
1275	MQ19	1312	MY136	1349	N211	1386	NA1241
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1277	MQ47	1314	MY159	1351	N223	1388	NA1250
1278	MQ55	1315	MY164	1352	N42	1389	NA1257
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1280	MR118	1317	MY221	1354	N46	1391	NA1270
1281	MR146	1318	MY228	1355	N54	1392	NA1281
1282	MR160	1319	MY253	1356	N8	1393	NA1292
1283	MR48	1320	MY259	1357	N85	1394	NA1299
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1286	MS86	1323	MY275	1360	NA1001	1397	NA133
1287	MT120	1324	MY28	1361	NA1010	1398	NA142
1288	MT124	1325	MY303	1362	NA1023	1399	NA15
1289	MT173	1326	MY306	1363	NA1026	1400	NA160

1401	NA166	1438	NA76	1475	NB944	1512	NF130
1402	NA20	1439	NA785	1476	NB955	1513	NF168
1403	NA222	1440	NA790	1477	NB968	1514	NF179
1404	NA227	1441	NA84	1478	NC112	1515	NF194
1405	NA234	1442	NA844	1479	NC22	1516	NF299
1406	NA252	1443	NA845	1480	NC36	1517	NF360
1407	NA26	1444	NA86	1481	NC50	1518	NF405
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1416	NA400	1453	NB434	1490	ND70	1527	NF56
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1420	NA421	1457	NB506	1494	NE186	1531	NF58
1421	NA446	1458	NB522	1495	NE2	1532	NF61
1422	NA461	1459	NB524	1496	NE236	1533	NF646
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1436	NA708	1473	NB908	1510	NE55	1547	NG227
1437	NA730	1474	NB922	1511	NE82	1548	NG231

1549	NG233	1586	NH455	1623	NHAG256	1660	NL15
1550	NG242	1587	NH459	1624	NHAN115	1661	NL192
1551	NG261	1588	NH483	1625	NHAN150	1662	NL285
1552	NG272	1589	NH502	1626	NHAN171	1663	NL29
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1554	NG351	1591	NH59	1628	NHAN216	1665	NL294
1555	NG363	1592	NH675	1629	NHAN304	1666	NL306
1556	NG365	1593	NH686	1630	NHAN306	1667	NL310
1557	NG367	1594	NH688	1631	NHAN307	1668	NL312
1558	NG396	1595	NH689	1632	NHAN320	1669	NL328
1559	NG399	1596	NH733	1633	NHAN381	1670	NL407
1560	NG415	1597	NH794	1634	NHAN94	1671	NL415
1561	NG424	1598	NH796	1635	NHAW129	1672	NL419
1562	NG435	1599	NH853	1636	NHAW268	1673	NL438
1563	NG463	1600	NH884	1637	NHAW282	1674	NL481
1564	NG475	1601	NH898	1638	NHAW416	1675	NL492
1565	NG476	1602	NH899	1639	NHAW677	1676	NL494
1566	NG525	1603	NHAB100	1640	NI104	1677	NL516
1567	NG552	1604	NHAB344	1641	NI172	1678	NL526
1568	NG556	1605	NHAB391	1642	NI185	1679	NL528
1569	NG585	1606	NHAB4	1643	NI208	1680	NL537
1570	NG619	1607	NHAE10	1644	NI219	1681	NL560
1571	NG634	1608	NHAE101	1645	NI220	1682	NL563
1572	NG635	1609	NHAE123	1646	NI76	1683	NL567
1573	NG67	1610	NHAE149	1647	NI93	1684	NL572
1574	NH119	1611	NHAE220	1648	NJ2	1685	NL573
1575	NH125	1612	NHAE27	1649	NJ24	1686	NL582
1576	NH163	1613	NHAE29	1650	NJ41	1687	NL598
1577	NH169	1614	NHAE322	1651	NJ44	1688	NL613
1578	NH239	1615	NHAE327	1652	NJ8	1689	NL623
1579	NH28	1616	NHAE331	1653	NK24	1690	NL641
1580	NH315	1617	NHAE96	1654	NK27	1691	NL659
1581	NH328	1618	NHAG1	1655	NK40	1692	NL701
1582	NH330	1619	NHAG203	1656	NL11	1693	NL707
1583	NH369	1620	NHAG22	1657	NL117	1694	NL710
1584	NH4	1621	NHAG225	1658	NL122	1695	NL715
1585	NH44	1622	NHAG230	1659	NL139	1696	NM134

1697	NM135	1734	NN16	1771	NN343	1808	NP23
1698	NM137	1735	NN177	1772	NN37	1809	NP26
1699	NM140	1736	NN179	1773	NN41	1810	NP260
1700	NM145	1737	NN182	1774	NN42	1811	NP261
1701	NM148	1738	NN2	1775	NN45	1812	NP264
1702	NM160	1739	NN203	1776	NN50	1813	NP270
1703	NM166	1740	NN206	1777	NN51	1814	NP271
1704	NM169	1741	NN207	1778	NN6	1815	NP272
1705	NM186	1742	NN210	1779	NN60	1816	NP275
1706	NM190	1743	NN212	1780	NN62	1817	NP279
1707	NM2	1744	NN229	1781	NN63	1818	NP281
1708	NM211	1745	NN233	1782	NN84	1819	NP296
1709	NM214	1746	NN241	1783	NN9	1820	NP3
1710	NM218	1747	NN247	1784	NN90	1821	NP32
1711	NM25	1748	NN248	1785	NN93	1822	NP37
1712	NM4	1749	NN26	1786	NO48	1823	NP4
1713	NM47	1750	NN260	1787	NP104	1824	NP46
1714	NM52	1751	NN264	1788	NP119	1825	NP49
1715	NM54	1752	NN270	1789	NP126	1826	NP68
1716	NM55	1753	NN273	1790	NP129	1827	NP79
1717	NM56	1754	NN280	1791	NP131	1828	NP86
1718	NM79	1755	NN282	1792	NP135	1829	NP94
1719	NM95	1756	NN29	1793	NP137	1830	NP96
1720	NM99	1757	NN295	1794	NP156	1831	NQ25
1721	NN10	1758	NN296	1795	NP16	1832	NQ27
1722	NN103	1759	NN3	1796	NP162	1833	NQ28
1723	NN104	1760	NN30	1797	NP164	1834	NQ34
1724	NN105	1761	NN310	1798	NP176	1835	NQ45
1725	NN106	1762	NN313	1799	NP180	1836	NQ82
1726	NN12	1763	NN314	1800	NP187	1837	NQ89
1727	NN120	1764	NN316	1801	NP189	1838	NQ95
1728	NN131	1765	NN320	1802	NP198	1839	NR117
1729	NN134	1766	NN322	1803	NP206	1840	NR55
1730	NN137	1767	NN323	1804	NP210	1841	NR65
1731	NN147	1768	NN326	1805	NP211	1842	NS115
1732	NN149	1769	NN33	1806	NP214	1843	NS121
1733	NN153	1770	NN34	1807	NP220	1844	NS138

1845	NS197	1882	NT789	1919	O2	1956	PC442
1846	NS202	1883	NT829	1920	O238	1957	PD125
1847	NS236	1884	NT830	1921	O271	1958	PD212
1848	NS58	1885	NU101	1922	O279	1959	PD233
1849	NS65	1886	NU130	1923	O328	1960	PD240
1850	NS70	1887	NU14	1924	O336	1961	PD278
1851	NT271	1888	NU177	1925	O394	1962	PD309
1852	NT301	1889	NU232	1926	O395	1963	PD319
1853	NT374	1890	NU34	1927	O406	1964	PD444
1854	NT382	1891	NU35	1928	O84	1965	PD456
1855	NT385	1892	NU356	1929	P12	1966	PE113
1856	NT392	1893	NV120	1930	P2	1967	PE115
1857	NT393	1894	NV213	1931	P22	1968	PE126
1858	NT394	1895	NW175	1932	P30	1969	PE128
1859	NT396	1896	NW68	1933	P35	1970	PE143
1860	NT418	1897	NW84	1934	P39	1971	PE159
1861	NT428	1898	NX135	1935	P405	1972	PE163
1862	NT429	1899	NX154	1936	P459	1973	PE166
1863	NT430	1900	NY178	1937	P53	1974	PE172
1864	NT432	1901	NY226	1938	P78	1975	PE182
1865	NT441	1902	NZ1	1939	P8	1976	PE186
1866	NT444	1903	NZ101	1940	P9	1977	PE19
1867	NT45	1904	NZ149	1941	PA85	1978	PE190
1868	NT453	1905	NZ187	1942	PB15	1979	PE204
1869	NT457	1906	NZ190	1943	PB165	1980	PE205
1870	NT512	1907	NZ229	1944	PB166	1981	PE213
1871	NT528	1908	NZ345	1945	PB60	1982	PE223
1872	NT53	1909	NZ77	1946	PC201	1983	PE227
1873	NT533	1910	NZ85	1947	PC262	1984	PE23
1874	NT678	1911	O117	1948	PC335	1985	PE246
1875	NT698	1912	O12	1949	PC349	1986	PE247
1876	NT730	1913	O131	1950	PC379	1987	PE251
1877	NT732	1914	O14	1951	PC381	1988	PE256
1878	NT733	1915	O140	1952	PC41	1989	PE261
1879	NT742	1916	O177	1953	PC410	1990	PE262
1880	NT746	1917	O185	1954	PC424	1991	PE272
1881	NT780	1918	O199	1955	PC425	1992	PE286

1993	PE287	2030	PE622	2067	PG117	2104	PJ193
1994	PE293	2031	PE642	2068	PG195	2105	PJ196
1995	PE299	2032	PE645	2069	PG284	2106	PJ212
1996	PE301	2033	PE650	2070	PG330	2107	PJ239
1997	PE308	2034	PE659	2071	PG371	2108	PJ26
1998	PE318	2035	PE673	2072	PG394	2109	PJ265
1999	PE338	2036	PE676	2073	PG397	2110	PJ299
2000	PE340	2037	PE677	2074	PG457	2111	PJ311
2001	PE363	2038	PE678	2075	PH148	2112	PJ314
2002	PE383	2039	PE691	2076	PH174	2113	PJ317
2003	PE399	2040	PE70	2077	PH226	2114	PJ323
2004	PE400	2041	PE727	2078	PH60	2115	PJ350
2005	PE403	2042	PE738	2079	PH79	2116	PJ356
2006	PE416	2043	PE750	2080	PH92	2117	PJ365
2007	PE430	2044	PE765	2081	PI13	2118	PJ372
2008	PE443	2045	PE768	2082	PI191	2119	PJ375
2009	PE47	2046	PE776	2083	PI198	2120	PJ414
2010	PE480	2047	PE777	2084	PI231	2121	PJ422
2011	PE482	2048	PE78	2085	PI25	2122	PJ433
2012	PE503	2049	PE789	2086	PI279	2123	PJ439
2013	PE505	2050	PE80	2087	PI323	2124	PJ46
2014	PE512	2051	PE806	2088	PI40	2125	PJ463
2015	PE518	2052	PE807	2089	PI62	2126	PJ471
2016	PE526	2053	PE808	2090	PJ1	2127	PJ488
2017	PE540	2054	PE817	2091	PJ11	2128	PJ495
2018	PE541	2055	PE834	2092	PJ130	2129	PJ496
2019	PE546	2056	PE840	2093	PJ132	2130	PJ502
2020	PE549	2057	PE842	2094	PJ14	2131	PJ518
2021	PE551	2058	PE843	2095	PJ142	2132	PJ525
2022	PE564	2059	PE862	2096	PJ145	2133	PJ53
2023	PE565	2060	PE91	2097	PJ154	2134	PJ544
2024	PE567	2061	PF146	2098	PJ157	2135	PJ546
2025	PE571	2062	PF231	2099	PJ161	2136	PJ78
2026	PE574	2063	PF291	2100	PJ167	2137	PJ8
2027	PE584	2064	PF296	2101	PJ172	2138	PJ95
2028	PE585	2065	PF3	2102	PJ181	2139	PK100
2029	PE615	2066	PF375	2103	PJ186	2140	PK103

2141	PK106	2178	PK558	2215	PL207	2252	PL491
2142	PK114	2179	PK561	2216	PL208	2253	PL501
2143	PK123	2180	PK594	2217	PL211	2254	PL506
2144	PK133	2181	PK598	2218	PL214	2255	PL507
2145	PK147	2182	PK613	2219	PL251	2256	PL512
2146	PK155	2183	PK65	2220	PL268	2257	PL52
2147	PK175	2184	PK655	2221	PL27	2258	PL554
2148	PK177	2185	PK66	2222	PL296	2259	PL559
2149	PK185	2186	PK676	2223	PL307	2260	PL566
2150	PK198	2187	PK696	2224	PL317	2261	PL567
2151	PK206	2188	PK702	2225	PL328	2262	PL572
2152	PK224	2189	PK727	2226	PL33	2263	PL587
2153	PK234	2190	PK753	2227	PL335	2264	PL594
2154	PK240	2191	PK799	2228	PL340	2265	PL599
2155	PK242	2192	PK80	2229	PL354	2266	PL60
2156	PK259	2193	PK817	2230	PL358	2267	PL603
2157	PK262	2194	PK819	2231	PL36	2268	PL614
2158	PK264	2195	PK829	2232	PL360	2269	PL658
2159	PK266	2196	PK831	2233	PL369	2270	PL664
2160	PK267	2197	PK855	2234	PL378	2271	PL67
2161	PK271	2198	PK857	2235	PL385	2272	PL673
2162	PK284	2199	PK864	2236	PL386	2273	PL69
2163	PK317	2200	PK878	2237	PL391	2274	PL701
2164	PK326	2201	PL104	2238	PL409	2275	PL71
2165	PK332	2202	PL105	2239	PL414	2276	PL719
2166	PK335	2203	PL106	2240	PL42	2277	PL725
2167	PK359	2204	PL110	2241	PL421	2278	PL730
2168	PK366	2205	PL111	2242	PL433	2279	PL741
2169	PK398	2206	PL125	2243	PL434	2280	PL747
2170	PK405	2207	PL146	2244	PL44	2281	PL750
2171	PK430	2208	PL157	2245	PL445	2282	PL751
2172	PK436	2209	PL159	2246	PL455	2283	PL765
2173	PK457	2210	PL16	2247	PL457	2284	PL772
2174	PK473	2211	PL164	2248	PL461	2285	PL773
2175	PK474	2212	PL189	2249	PL463	2286	PL776
2176	PK503	2213	PL19	2250	PL464	2287	PL784
2177	PK551	2214	PL205	2251	PL486	2288	PL803

2289	PL830	2326	PM260	2363	PM516	2400	PM783
2290	PL845	2327	PM275	2364	PM523	2401	PM789
2291	PL85	2328	PM289	2365	PM524	2402	PM790
2292	PL87	2329	PM297	2366	PM527	2403	PM801
2293	PL89	2330	PM303	2367	PM529	2404	PM803
2294	PM1	2331	PM305	2368	PM53	2405	PM812
2295	PM103	2332	PM306	2369	PM537	2406	PM830
2296	PM105	2333	PM310	2370	PM545	2407	PM840
2297	PM110	2334	PM314	2371	PM546	2408	PM841
2298	PM113	2335	PM323	2372	PM554	2409	PM842
2299	PM126	2336	PM34	2373	PM562	2410	PM843
2300	PM129	2337	PM347	2374	PM579	2411	PM849
2301	PM136	2338	PM362	2375	PM583	2412	PM854
2302	PM141	2339	PM371	2376	PM596	2413	PM96
2303	PM142	2340	PM385	2377	PM6	2414	PO12
2304	PM144	2341	PM387	2378	PM601	2415	PO30
2305	PM150	2342	PM39	2379	PM605	2416	PO36
2306	PM158	2343	PM393	2380	PM623	2417	PO42
2307	PM161	2344	PM397	2381	PM624	2418	PO72
2308	PM170	2345	PM4	2382	PM627	2419	PP1
2309	PM173	2346	PM40	2383	PM633	2420	PP10
2310	PM180	2347	PM404	2384	PM672	2421	PP101
2311	PM182	2348	PM412	2385	PM681	2422	PP110
2312	PM19	2349	PM413	2386	PM692	2423	PP117
2313	PM195	2350	PM415	2387	PM696	2424	PP128
2314	PM198	2351	PM42	2388	PM697	2425	PP131
2315	PM200	2352	PM421	2389	PM717	2426	PP133
2316	PM202	2353	PM430	2390	PM722	2427	PP136
2317	PM21	2354	PM434	2391	PM738	2428	PP138
2318	PM213	2355	PM446	2392	PM741	2429	PP163
2319	PM217	2356	PM455	2393	PM749	2430	PP165
2320	PM229	2357	PM46	2394	PM753	2431	PP173
2321	PM243	2358	PM476	2395	PM758	2432	PP175
2322	PM245	2359	PM482	2396	PM767	2433	PP194
2323	PM248	2360	PM503	2397	PM769	2434	PP210
2324	PM249	2361	PM51	2398	PM776	2435	PP212
2325	PM256	2362	PM514	2399	PM782	2436	PP216

2437	PP219
2438	PP224
2439	PP226
2440	PP227
2441	PP23
2442	PP230
2443	PP233
2444	PP242
2445	PP243
2446	PP244
2447	PP245
2448	PP255
2449	PP260
2450	PP261
2451	PP267
2452	PP276
2453	PP292
2454	PP297
2455	PP299
2456	PP303
2457	PP308
2458	PP314
2459	PP321
2460	PP325
2461	PP330
2462	PP332
2463	PP337
2464	PP345
2465	PP35
2466	PP356
2467	PP367
2468	PP379
2469	PP386
2470	PP387
2471	PP389
2472	PP390
2473	PP392
2474	PP393
2475	PP395
2476	PP398
2477	PP407
2478	PP411
2479	PP413
2480	PP422
2481	PP428
2482	PP430
2483	PP451
2484	PP454
2485	PP457
2486	PP46
2487	PP469
2488	PP47
2489	PP482
2490	PP487
2491	PP5
2492	PP509
2493	PP51
2494	PP517
2495	PP525
2496	PP54
2497	PP60
2498	PP7
2499	PP71
2500	PP80

The "Clone ID No." for a particular clone consists of one or two letters followed by a number. The letters designate the tissue source from which the sEST was isolated. Table 3 below lists the various sources which were run through applicants' signal sequence trap. Thus, the tissue source for a particular sEST sequence can be identified in Table 3 by the one and two letter designations used in the relevant "Clone ID No." in Table 2. For example, a clone designated as "AA239" would have been isolated from a human fetal kidney library (i.e., selection "AA") as indicated in Table 3.

As used herein, "polynucleotide" includes single- and double-stranded RNAs, DNAs and RNA:DNA hybrids.

As used herein a "secreted" protein is one which, when expressed in a suitable host cell, is transported across or through a membrane, including transport as a result of signal sequences in its amino acid sequence. "Secreted" proteins include without limitation proteins secreted wholly (e.g., soluble proteins) or partially (e.g. , receptors) from the cell in which they are expressed. "Secreted" proteins also include without limitation proteins which are transported across the membrane of the endoplasmic reticulum.

Fragments of the proteins of the present invention which are capable of exhibiting biological activity are also encompassed by the present invention. Fragments of the protein may be in linear form or they may be cyclized using known methods, for example, as described in H.U. Saragovi, *et al.*, Bio/Technology 10, 773-778 (1992) and in R.S. McDowell, *et al.*, J. Amer. Chem. Soc. 114, 9245-9253 (1992), both of which are incorporated herein by reference. Such fragments may be fused to carrier molecules such as immunoglobulins for many purposes, including increasing the valency of protein binding sites. For example, fragments of the protein may be fused through "linker" sequences to the Fc portion of an immunoglobulin. For a bivalent form of the protein, such a fusion could be to the Fc portion of an IgG molecule. Other immunoglobulin isotypes may also be used to generate such fusions. For example, a protein - IgM fusion would generate a decavalent form of the protein of the invention.

The present invention also provides both full-length and mature forms of the disclosed proteins. The full-length form of the such proteins is identified in the sequence listing by translation of the nucleotide sequence of each disclosed clone. The mature form(s) of such protein may be obtained by expression of the disclosed full-length polynucleotide (preferably those deposited with ATCC) in a suitable

mammalian cell or other host cell. The sequence(s) of the mature form(s) of the protein may also be determinable from the amino acid sequence of the full-length form.

The present invention also provides genes corresponding to the polynucleotide sequences disclosed herein. "Corresponding genes" are the regions of the genome that are transcribed to produce the mRNAs from which cDNA polynucleotide sequences are derived and may include contiguous regions of the genome necessary for the regulated expression of such genes. Corresponding genes may therefore include but are not limited to coding sequences, 5' and 3' untranslated regions, alternatively spliced exons, introns, promoters, enhancers, and silencer or suppressor elements. The corresponding genes can be isolated in accordance with known methods using the sequence information disclosed herein. Such methods include the preparation of probes or primers from the disclosed sequence information for identification and/or amplification of genes in appropriate genomic libraries or other sources of genomic materials. An "isolated gene" is a gene that has been separated from the adjacent coding sequences, if any, present in the genome of the organism from which the gene was isolated.

The chromosomal location corresponding to the polynucleotide sequences disclosed herein may also be determined, for example by hybridizing appropriately labeled polynucleotides of the present invention to chromosomes *in situ*. It may also be possible to determine the corresponding chromosomal location for a disclosed polynucleotide by identifying significantly similar nucleotide sequences in public databases, such as expressed sequence tags (ESTs), that have already been mapped to particular chromosomal locations. For at least some of the polynucleotide sequences disclosed herein, public database sequences having at least some similarity to the polynucleotide of the present invention have been listed by database accession number. Searches using the GenBank accession numbers of these public database sequences can then be performed at an Internet site provided by the National Center for Biotechnology Information having the address www.ncbi.nlm.nih.gov/UniGene, in order to identify "UniGene clusters" of overlapping sequences. Many of the "UniGene clusters" so identified will already have been mapped to particular chromosomal sites.

Organisms that have enhanced, reduced, or modified expression of the gene(s) corresponding to the polynucleotide sequences disclosed herein are provided.

The desired change in gene expression can be achieved through the use of antisense polynucleotides or ribozymes that bind and/or cleave the mRNA transcribed from the gene (Albert and Morris, 1994, *Trends Pharmacol. Sci.* **15(7)**: 250-254; Lavarosky *et al.*, 1997, *Biochem. Mol. Med.* **62(1)**: 11-22; and Hampel, 1998, *Prog. Nucleic Acid Res. Mol. Biol.* **58**: 1-39; all of which are incorporated by reference herein). Transgenic animals that have multiple copies of the gene(s) corresponding to the polynucleotide sequences disclosed herein, preferably produced by transformation of cells with genetic constructs that are stably maintained within the transformed cells and their progeny, are provided. Transgenic animals that have modified genetic control regions that increase or reduce gene expression levels, or that change temporal or spatial patterns of gene expression, are also provided (see European Patent No. 0 649 464 B1, incorporated by reference herein). In addition, organisms are provided in which the gene(s) corresponding to the polynucleotide sequences disclosed herein have been partially or completely inactivated, through insertion of extraneous sequences into the corresponding gene(s) or through deletion of all or part of the corresponding gene(s). Partial or complete gene inactivation can be accomplished through insertion, preferably followed by imprecise excision, of transposable elements (Plasterk, 1992, *Bioessays* **14(9)**: 629-633; Zwaal *et al.*, 1993, *Proc. Natl. Acad. Sci. USA* **90(16)**: 7431-7435; Clark *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* **91(2)**: 719-722; all of which are incorporated by reference herein), or through homologous recombination, preferably detected by positive/negative genetic selection strategies (Mansour *et al.*, 1988, *Nature* **336**: 348-352; U.S. Patent Nos. 5,464,764; 5,487,992; 5,627,059; 5,631,153; 5,614, 396; 5,616,491; and 5,679,523; all of which are incorporated by reference herein). These organisms with altered gene expression are preferably eukaryotes and more preferably are mammals. Such organisms are useful for the development of non-human models for the study of disorders involving the corresponding gene(s), and for the development of assay systems for the identification of molecules that interact with the protein product(s) of the corresponding gene(s).

Where the protein of the present invention is membrane-bound (e.g., is a receptor), the present invention also provides for soluble forms of such protein. In such forms part or all of the intracellular and transmembrane domains of the protein are deleted such that the protein is fully secreted from the cell in which it is expressed. The intracellular and transmembrane domains of proteins of the invention

can be identified in accordance with known techniques for determination of such domains from sequence information.

Proteins and protein fragments of the present invention include proteins with amino acid sequence lengths that are at least 25%(more preferably at least 50%, and most preferably at least 75%) of the length of a disclosed protein and have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with that disclosed protein, where sequence identity is determined by comparing the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Also included in the present invention are proteins and protein fragments that contain a segment preferably comprising 8 or more (more preferably 20 or more, most preferably 30 or more) contiguous amino acids that shares at least 75% sequence identity (more preferably, at least 85% identity; most preferably at least 95% identity) with any such segment of any of the disclosed proteins.

In particular, sequence identity may be determined using WU-BLAST (Washington University BLAST) version 2.0 software, which builds upon WU-BLAST version 1.4, which in turn is based on the public domain NCBI-BLAST version 1.4 (Altschul and Gish, 1996, Local alignment statistics, Doolittle *ed.*, *Methods in Enzymology* **266**: 460-480; Altschul *et al.*, 1990, Basic local alignment search tool, *Journal of Molecular Biology* **215**: 403-410; Gish and States, 1993, Identification of protein coding regions by database similarity search, *Nature Genetics* **3**: 266-272; Karlin and Altschul, 1993, Applications and statistics for multiple high-scoring segments in molecular sequences, *Proc. Natl. Acad. Sci. USA* **90**: 5873-5877; all of which are incorporated by reference herein). WU-BLAST version 2.0 executable programs for several UNIX platforms can be downloaded from the Internet file-transfer protocol (FTP) site ftp://blast.wustl.edu/blast/executables. The complete suite of search programs (BLASTP, BLASTN, BLASTX, TBLASTN, and TBLASTX) is provided at that site, in addition to several support programs. WU-BLAST 2.0 is copyrighted and may not be sold or redistributed in any form or manner without the express written consent of the author; but the posted executables may otherwise be freely used for commercial, nonprofit, or academic purposes. In all search programs in the suite -- BLASTP, BLASTN, BLASTX, TBLASTN and

TBLASTX -- the gapped alignment routines are integral to the database search itself, and thus yield much better sensitivity and selectivity while producing the more easily interpreted output. Gapping can optionally be turned off in all of these programs, if desired. The default penalty (Q) for a gap of length one is Q=9 for proteins and BLASTP, and Q=10 for BLASTN, but may be changed to any integer value including zero, one through eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. The default per-residue penalty for extending a gap (R) is R=2 for proteins and BLASTP, and R=10 for BLASTN, but may be changed to any integer value including zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve through twenty, twenty-one through fifty, fifty-one through one hundred, etc. Any combination of values for Q and R can be used in order to align sequences so as to maximize overlap and identity while minimizing sequence gaps. The default amino acid comparison matrix is BLOSUM62, but other amino acid comparison matrices such as PAM can be utilized.

Species homologues of the disclosed polynucleotides and proteins are also provided by the present invention. As used herein, a "species homologue" is a protein or polynucleotide with a different species of origin from that of a given protein or polynucleotide, but with significant sequence similarity to the given protein or polynucleotide. Preferably, polynucleotide species homologues have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, and protein species homologues have at least 30% sequence identity (more preferably, at least 45% identity; most preferably at least 60% identity) with the given protein, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides or the amino acid sequences of the proteins when aligned so as to maximize overlap and identity while minimizing sequence gaps. Species homologues may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from the desired species. Preferably, species homologues are those isolated from mammalian species. Most preferably, species homologues are those isolated from certain mammalian species such as, for example, *Pan troglodytes, Gorilla gorilla, Pongo pygmaeus, Hylobates concolor, Macaca mulatta, Papio papio, Papio hamadryas, Cercopithecus aethiops, Cebus capucinus, Aotus trivirgatus,*

Sanguinus oedipus, Microcebus murinus, Mus musculus, Rattus norvegicus, Cricetulus griseus, Felis catus, Mustela vison, Canis familiaris, Oryctolagus cuniculus, Bos taurus, Ovis aries, Sus scrofa, and *Equus caballus*, for which genetic maps have been created allowing the identification of syntenic relationships between the genomic organization of genes in one species and the genomic organization of the related genes in another species (O'Brien and Seuánez, 1988, *Ann. Rev. Genet.* **22**: 323-351; O'Brien *et al.*, 1993, *Nature Genetics* 3:103-112; Johansson *et al.*, 1995, *Genomics* **25**: 682-690; Lyons *et al.*, 1997, *Nature Genetics* **15**: 47-56; O'Brien *et al.*, 1997, *Trends in Genetics* **13(10)**: 393-399; Carver and Stubbs, 1997, *Genome Research* 7:1123-1137; all of which are incorporated by reference herein).

The invention also encompasses allelic variants of the disclosed polynucleotides or proteins; that is, naturally-occurring alternative forms of the isolated polynucleotides which also encode proteins which are identical or have significantly similar sequences to those encoded by the disclosed polynucleotides. Preferably, allelic variants have at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% identity) with the given polynucleotide, where sequence identity is determined by comparing the nucleotide sequences of the polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps. Allelic variants may be isolated and identified by making suitable probes or primers from the sequences provided herein and screening a suitable nucleic acid source from individuals of the appropriate species.

The invention also includes polynucleotides with sequences complementary to those of the polynucleotides disclosed herein.

The present invention also includes polynucleotides that hybridize under reduced stringency conditions, more preferably stringent conditions, and most preferably highly stringent conditions, to polynucleotides described herein. Examples of stringency conditions are shown in the table below: highly stringent conditions are those that are at least as stringent as, for example, conditions A-F; stringent conditions are at least as stringent as, for example, conditions G-L; and reduced stringency conditions are at least as stringent as, for example, conditions M-R.

Stringency Condition	Polynucleotide Hybrid	Hybrid Length (bp)‡	Hybridization Temperature and Buffer†	Wash Temperature and Buffer†
A	DNA:DNA	≥ 50	65°C; 1xSSC -or- 42°C; 1xSSC, 50% formamide	65°C; 0.3xSSC
B	DNA:DNA	<50	T_B*; 1xSSC	T_B*; 1xSSC
C	DNA:RNA	≥ 50	67°C; 1xSSC -or- 45°C; 1xSSC, 50% formamide	67°C; 0.3xSSC
D	DNA:RNA	<50	T_D*; 1xSSC	T_D*; 1xSSC
E	RNA:RNA	≥ 50	70°C; 1xSSC -or- 50°C; 1xSSC, 50% formamide	70°C; 0.3xSSC
F	RNA:RNA	<50	T_F*; 1xSSC	T_F*; 1xSSC
G	DNA:DNA	≥ 50	65°C; 4xSSC -or- 42°C; 4xSSC, 50% formamide	65°C; 1xSSC
H	DNA:DNA	<50	T_H*; 4xSSC	T_H*; 4xSSC
I	DNA:RNA	≥ 50	67°C; 4xSSC -or- 45°C; 4xSSC, 50% formamide	67°C; 1xSSC
J	DNA:RNA	<50	T_J*; 4xSSC	T_J*; 4xSSC
K	RNA:RNA	≥ 50	70°C; 4xSSC -or- 50°C; 4xSSC, 50% formamide	67°C; 1xSSC
L	RNA:RNA	<50	T_L*; 2xSSC	T_L*; 2xSSC
M	DNA:DNA	≥ 50	50°C; 4xSSC -or- 40°C; 6xSSC, 50% formamide	50°C; 2xSSC
N	DNA:DNA	<50	T_N*; 6xSSC	T_N*; 6xSSC
O	DNA:RNA	≥ 50	55°C; 4xSSC -or- 42°C; 6xSSC, 50% formamide	55°C; 2xSSC
P	DNA:RNA	<50	T_P*; 6xSSC	T_P*; 6xSSC
Q	RNA:RNA	≥ 50	60°C; 4xSSC -or- 45°C; 6xSSC, 50% formamide	60°C; 2xSSC
R	RNA:RNA	<50	T_R*; 4xSSC	T_R*; 4xSSC

‡: The hybrid length is that anticipated for the hybridized region(s) of the hybridizing polynucleotides. When hybridizing a polynucleotide to a target polynucleotide of unknown sequence, the hybrid length is assumed to be that of the hybridizing polynucleotide. When polynucleotides of known sequence are hybridized, the hybrid length can be determined by aligning the sequences of the polynucleotides and identifying the region or regions of optimal sequence complementarity.

†: SSPE (1xSSPE is 0.15M NaCl, 10mM NaH_2PO_4, and 1.25mM EDTA, pH 7.4) can be substituted for SSC (1xSSC is 0.15M NaCl and 15mM sodium citrate) in the hybridization and wash buffers; washes are performed for 15 minutes after hybridization is complete.

*T_B - T_R: The hybridization temperature for hybrids anticipated to be less than 50 base pairs in length should be 5-10°C less than the melting temperature (T_m) of the hybrid, where T_m is determined according to the following equations. For hybrids less than 18 base pairs in length, T_m(°C) = 2(# of A + T bases) + 4(# of G + C bases). For hybrids between 18 and 49 base

pairs in length, $T_m(°C) = 81.5 + 16.6(\log_{10}[Na^+]) + 0.41(\%G+C) - (600/N)$, where N is the number of bases in the hybrid, and $[Na^+]$ is the concentration of sodium ions in the hybridization buffer ($[Na^+]$ for 1xSSC = 0.165 M).

Additional examples of stringency conditions for polynucleotide hybridization are provided in Sambrook, J., E.F. Fritsch, and T. Maniatis, 1989, *Molecular Cloning: A Laboratory Manual,* Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, chapters 9 and 11, and *Current Protocols in Molecular Biology,* 1995, F.M. Ausubel et al., eds., John Wiley & Sons, Inc., sections 2.10 and 6.3-6.4, incorporated herein by reference.

Preferably, each such hybridizing polynucleotide has a length that is at least 25%(more preferably at least 50%, and most preferably at least 75%) of the length of the polynucleotide of the present invention to which it hybridizes, and has at least 60% sequence identity (more preferably, at least 75% identity; most preferably at least 90% or 95% identity) with the polynucleotide of the present invention to which it hybridizes, where sequence identity is determined by comparing the sequences of the hybridizing polynucleotides when aligned so as to maximize overlap and identity while minimizing sequence gaps.

The isolated polynucleotide of the invention may contain sequences at its 5' and/or 3' end that are derived from linker, polylinker, or multiple cloning site sequences commonly found in vectors such as the pMT2 or pED expression vectors (see below). For example, sequences such as SEQ ID NO:2501, SEQ ID NO:2502, or SEQ ID NO:2503 may be found at the 5' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 3' end. Similarly, sequences such as SEQ ID NO:2504, SEQ ID NO:2505, or SEQ ID NO:2506 may be found at the 3' end of an isolated polynucleotide of the invention, or the complement of any of these sequences may be found at its 5' end. In addition, variants of these linker sequences may be present in isolated polynucleotides of the invention, which linker variants vary from SEQ ID NO:2501 through SEQ ID NO:2506 by the alteration, insertion, or deletion of one or more nucleotides. Therefore, a preferred embodiment of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 25 and ending at nucleotide (N-25) of the SEQ ID NO for that polynucleotide, where N represents the total number of nucleotides in the sequence. As a specific example, a preferred embodiment of the invention comprises the nucleotide sequence of SEQ ID NO:1

from nucleotide 25 to nucleotide 291, where the total number of nucleotides (N) in SEQ ID NO:1 is 316, and N-25 equals 291. More preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 30 and ending at nucleotide (N-30) of the SEQ ID NO for that polynucleotide. Most preferably, a polynucleotide of the invention comprises the nucleotide sequence of any of the isolated polynucleotides disclosed herein, beginning at nucleotide 35 and ending at nucleotide (N-35) of the SEQ ID NO for that polynucleotide.

The isolated polynucleotide of the invention may be operably linked to an expression control sequence such as the pMT2 or pED expression vectors disclosed in Kaufman *et al.*, Nucleic Acids Res. 19, 4485-4490 (1991), in order to produce the protein recombinantly. Many suitable expression control sequences are known in the art. General methods of expressing recombinant proteins are also known and are exemplified in R. Kaufman, Methods in Enzymology 185, 537-566 (1990). As defined herein "operably linked" means that the isolated polynucleotide of the invention and an expression control sequence are situated within a vector or cell in such a way that the protein is expressed by a host cell which has been transformed (transfected) with the ligated polynucleotide/expression control sequence.

A number of types of cells may act as suitable host cells for expression of the protein. Mammalian host cells include, for example, monkey COS cells, Chinese Hamster Ovary (CHO) cells, human kidney 293 cells, human epidermal A431 cells, human Colo205 cells, 3T3 cells, CV-1 cells, other transformed primate cell lines, normal diploid cells, cell strains derived from in vitro culture of primary tissue, primary explants, HeLa cells, mouse L cells, BHK, HL-60, U937, HaK or Jurkat cells.

Alternatively, it may be possible to produce the protein in lower eukaryotes such as yeast or in prokaryotes such as bacteria. Potentially suitable yeast strains include *Saccharomyces cerevisiae, Schizosaccharomyces pombe, Kluyveromyces* strains, *Candida*, or any yeast strain capable of expressing heterologous proteins. Potentially suitable bacterial strains include *Escherichia coli, Bacillus subtilis, Salmonella typhimurium*, or any bacterial strain capable of expressing heterologous proteins. If the protein is made in yeast or bacteria, it may be necessary to modify the protein produced therein, for example by phosphorylation or glycosylation of the appropriate sites, in order to obtain the functional protein. Such covalent attachments may be accomplished using known chemical or enzymatic methods.

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, *e.g.*, Invitrogen, San Diego, California, U.S.A. (the MaxBac® kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (i.e., from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, heparin-toyopearl® or Cibacrom blue 3GA Sepharose®; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

Alternatively, the protein of the invention may also be expressed in a form which will facilitate purification. For example, it may be expressed as a fusion protein, such as those of maltose binding protein (MBP), glutathione-S-transferase (GST) or thioredoxin (TRX). Kits for expression and purification of such fusion proteins are commercially available from New England BioLabs (Beverly, MA), Pharmacia (Piscataway, NJ) and Invitrogen Corporation (Carlsbad, CA), respectively. The protein can also be tagged with an epitope and subsequently purified by using a specific antibody directed to such epitope. One such epitope ("Flag") is commercially available from the Eastman Kodak Company (New Haven, CT).

Finally, one or more reverse-phase high performance liquid chromatography (RP-HPLC) steps employing hydrophobic RP-HPLC media, e.g., silica gel having pendant methyl or other aliphatic groups, can be employed to further purify the protein. Some or all of the foregoing purification steps, in various combinations, can also be employed to provide a substantially homogeneous isolated recombinant

protein. The protein thus purified is substantially free of other mammalian proteins and is defined in accordance with the present invention as an "isolated protein."

The protein of the invention may also be expressed as a product of transgenic animals, e.g., as a component of the milk of transgenic cows, goats, pigs, or sheep which are characterized by somatic or germ cells containing a nucleotide sequence encoding the protein.

The protein may also be produced by known conventional chemical synthesis. Methods for constructing the proteins of the present invention by synthetic means are known to those skilled in the art. The synthetically-constructed protein sequences, by virtue of sharing primary, secondary or tertiary structural and/or conformational characteristics with proteins may possess biological properties in common therewith, including protein activity. Thus, they may be employed as biologically active or immunological substitutes for natural, purified proteins in screening of therapeutic compounds and in immunological processes for the development of antibodies.

The proteins provided herein also include proteins characterized by amino acid sequences similar to those of purified proteins but into which modification are naturally provided or deliberately engineered. For example, modifications in the peptide or DNA sequences can be made by those skilled in the art using known techniques. Modifications of interest in the protein sequences may include the alteration, substitution, replacement, insertion or deletion of a selected amino acid residue in the coding sequence. For example, one or more of the cysteine residues may be deleted or replaced with another amino acid to alter the conformation of the molecule. Techniques for such alteration, substitution, replacement, insertion or deletion are well known to those skilled in the art (see, e.g., U.S. Patent No. 4,518,584). Preferably, such alteration, substitution, replacement, insertion or deletion retains the desired activity of the protein.

Other fragments and derivatives of the sequences of proteins which would be expected to retain protein activity in whole or in part and may thus be useful for screening or other immunological methodologies may also be easily made by those skilled in the art given the disclosures herein. Such modifications are believed to be encompassed by the present invention.

USES AND BIOLOGICAL ACTIVITY

The polynucleotides and proteins of the present invention are expected to exhibit one or more of the uses or biological activities (including those associated with assays cited herein) identified below. Uses or activities described for proteins of the present invention may be provided by administration or use of such proteins or by administration or use of polynucleotides encoding such proteins (such as, for example, in gene therapies or vectors suitable for introduction of DNA).

Research Uses and Utilities

The polynucleotides provided by the present invention can be used by the research community for various purposes. The primary use of polynucleotides of the invention which are sESTs is as porbes for the identification and isolation of full-length cDNAs and genomic DNA molecules which correspond (i.e., is a longer polynucleotide sequence of which substantially the entire sEST is a fragment in the case of a full-length cDNA, or which encodes the sEST in the case of a genomic DNA molecule) to such sESTs. Techniques for use of such sequences as probes for larger cDNAs or genomic molecules are well known in the art.

The polynucleotides can also be used to express recombinant protein for analysis, characterization or therapeutic use; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in disease states); as molecular weight markers on Southern gels; as chromosome markers or tags (when labeled) to identify chromosomes or to map related gene positions; to compare with endogenous DNA sequences in patients to identify potential genetic disorders; as probes to hybridize and thus discover novel, related DNA sequences; as a source of information to derive PCR primers for genetic fingerprinting; as a probe to "subtract-out" known sequences in the process of discovering other novel polynucleotides; for selecting and making oligomers for attachment to a "gene chip" or other support, including for examination of expression patterns; to raise anti-protein antibodies using DNA immunization techniques; and as an antigen to raise anti-DNA antibodies or elicit another immune response. Where the polynucleotide encodes a protein which binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the polynucleotide can also be used in interaction trap assays (such as, for example, that described in Gyuris et al., Cell 75:791-803 (1993)) to

identify polynucleotides encoding the other protein with which binding occurs or to identify inhibitors of the binding interaction.

The proteins provided by the present invention can similarly be used in assay to determine biological activity, including in a panel of multiple proteins for high-throughput screening; to raise antibodies or to elicit another immune response; as a reagent (including the labeled reagent) in assays designed to quantitatively determine levels of the protein (or its receptor) in biological fluids; as markers for tissues in which the corresponding protein is preferentially expressed (either constitutively or at a particular stage of tissue differentiation or development or in a disease state); and, of course, to isolate correlative receptors or ligands. Where the protein binds or potentially binds to another protein (such as, for example, in a receptor-ligand interaction), the protein can be used to identify the other protein with which binding occurs or to identify inhibitors of the binding interaction. Proteins involved in these binding interactions can also be used to screen for peptide or small molecule inhibitors or agonists of the binding interaction.

Any or all of these research utilities are capable of being developed into reagent grade or kit format for commercialization as research products.

Methods for performing the uses listed above are well known to those skilled in the art. References disclosing such methods include without limitation "Molecular Cloning: A Laboratory Manual", 2d ed., Cold Spring Harbor Laboratory Press, Sambrook, J., E.F. Fritsch and T. Maniatis eds., 1989, and "Methods in Enzymology: Guide to Molecular Cloning Techniques", Academic Press, Berger, S.L. and A.R. Kimmel eds., 1987.

Nutritional Uses

Polynucleotides and proteins of the present invention can also be used as nutritional sources or supplements. Such uses include without limitation use as a protein or amino acid supplement, use as a carbon source, use as a nitrogen source and use as a source of carbohydrate. In such cases the protein or polynucleotide of the invention can be added to the feed of a particular organism or can be administered as a separate solid or liquid preparation, such as in the form of powder, pills, solutions, suspensions or capsules. In the case of microorganisms, the protein or polynucleotide of the invention can be added to the medium in or on which the microorganism is cultured.

Cytokine and Cell Proliferation/Differentiation Activity

A protein of the present invention may exhibit cytokine, cell proliferation (either inducing or inhibiting) or cell differentiation (either inducing or inhibiting) activity or may induce production of other cytokines in certain cell populations. Many protein factors discovered to date, including all known cytokines, have exhibited activity in one or more factor dependent cell proliferation assays, and hence the assays serve as a convenient confirmation of cytokine activity. The activity of a protein of the present invention is evidenced by any one of a number of routine factor dependent cell proliferation assays for cell lines including, without limitation, 32D, DA2, DA1G, T10, B9, B9/11, BaF3, MC9/G, M+ (preB M+), 2E8, RB5, DA1, 123, T1165, HT2, CTLL2, TF-1, Mo7e and CMK.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for T-cell or thymocyte proliferation include without limitation those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Bertagnolli et al., J. Immunol. 145:1706-1712, 1990; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Bertagnolli, et al., J. Immunol. 149:3778-3783, 1992; Bowman et al., J. Immunol. 152: 1756-1761, 1994.

Assays for cytokine production and/or proliferation of spleen cells, lymph node cells or thymocytes include, without limitation, those described in: Polyclonal T cell stimulation, Kruisbeek, A.M. and Shevach, E.M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.12.1-3.12.14, John Wiley and Sons, Toronto. 1994; and Measurement of mouse and human Interferon γ, Schreiber, R.D. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.8.1-6.8.8, John Wiley and Sons, Toronto. 1994.

Assays for proliferation and differentiation of hematopoietic and lymphopoietic cells include, without limitation, those described in: Measurement of Human and Murine Interleukin 2 and Interleukin 4, Bottomly, K., Davis, L.S. and Lipsky, P.E. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.3.1-6.3.12, John Wiley and Sons, Toronto. 1991; deVries et al., J. Exp. Med. 173:1205-1211, 1991; Moreau et al., Nature 336:690-692, 1988; Greenberger et al., Proc.

Natl. Acad. Sci. U.S.A. 80:2931-2938, 1983; Measurement of mouse and human interleukin 6 - Nordan, R. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.6.1-6.6.5, John Wiley and Sons, Toronto. 1991; Smith et al., Proc. Natl. Acad. Sci. U.S.A. 83:1857-1861, 1986; Measurement of human Interleukin 11 - Bennett, F., Giannotti, J., Clark, S.C. and Turner, K. J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.15.1 John Wiley and Sons, Toronto. 1991; Measurement of mouse and human Interleukin 9 - Ciarletta, A., Giannotti, J., Clark, S.C. and Turner, K.J. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 6.13.1, John Wiley and Sons, Toronto. 1991.

Assays for T-cell clone responses to antigens (which will identify, among others, proteins that affect APC-T cell interactions as well as direct T-cell effects by measuring proliferation and cytokine production) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function; Chapter 6, Cytokines and their cellular receptors; Chapter 7, Immunologic studies in Humans); Weinberger et al., Proc. Natl. Acad. Sci. USA 77:6091-6095, 1980; Weinberger et al., Eur. J. Immun. 11:405-411, 1981; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988.

Immune Stimulating or Suppressing Activity

A protein of the present invention may also exhibit immune stimulating or immune suppressing activity, including without limitation the activities for which assays are described herein. A protein may be useful in the treatment of various immune deficiencies and disorders (including severe combined immunodeficiency (SCID)), e.g., in regulating (up or down) growth and proliferation of T and/or B lymphocytes, as well as effecting the cytolytic activity of NK cells and other cell populations. These immune deficiencies may be genetic or be caused by viral (e.g., HIV) as well as bacterial or fungal infections, or may result from autoimmune disorders. More specifically, infectious diseases causes by viral, bacterial, fungal or other infection may be treatable using a protein of the present invention, including infections by HIV, hepatitis viruses, herpesviruses, mycobacteria, Leishmania spp., malaria spp. and various fungal infections such as candidiasis. Of course, in this

regard, a protein of the present invention may also be useful where a boost to the immune system generally may be desirable, *i.e.*, in the treatment of cancer.

Autoimmune disorders which may be treated using a protein of the present invention include, for example, connective tissue disease, multiple sclerosis, systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary inflammation, Guillain-Barre syndrome, autoimmune thyroiditis, insulin dependent diabetes mellitis, myasthenia gravis, graft-versus-host disease and autoimmune inflammatory eye disease. Such a protein of the present invention may also to be useful in the treatment of allergic reactions and conditions, such as asthma (particularly allergic asthma) or other respiratory problems. Other conditions, in which immune suppression is desired (including, for example, organ transplantation), may also be treatable using a protein of the present invention.

Using the proteins of the invention it may also be possible to immune responses, in a number of ways. Down regulation may be in the form of inhibiting or blocking an immune response already in progress or may involve preventing the induction of an immune response. The functions of activated T cells may be inhibited by suppressing T cell responses or by inducing specific tolerance in T cells, or both. Immunosuppression of T cell responses is generally an active, non-antigen-specific, process which requires continuous exposure of the T cells to the suppressive agent. Tolerance, which involves inducing non-responsiveness or anergy in T cells, is distinguishable from immunosuppression in that it is generally antigen-specific and persists after exposure to the tolerizing agent has ceased. Operationally, tolerance can be demonstrated by the lack of a T cell response upon reexposure to specific antigen in the absence of the tolerizing agent.

Down regulating or preventing one or more antigen functions (including without limitation B lymphocyte antigen functions (such as , for example, B7)), *e.g.*, preventing high level lymphokine synthesis by activated T cells, will be useful in situations of tissue, skin and organ transplantation and in graft-versus-host disease (GVHD). For example, blockage of T cell function should result in reduced tissue destruction in tissue transplantation. Typically, in tissue transplants, rejection of the transplant is initiated through its recognition as foreign by T cells, followed by an immune reaction that destroys the transplant. The administration of a molecule which inhibits or blocks interaction of a B7 lymphocyte antigen with its natural ligand(s) on immune cells (such as a soluble, monomeric form of a peptide having

B7-2 activity alone or in conjunction with a monomeric form of a peptide having an activity of another B lymphocyte antigen (*e.g.*, B7-1, B7-3) or blocking antibody), prior to transplantation can lead to the binding of the molecule to the natural ligand(s) on the immune cells without transmitting the corresponding costimulatory signal. Blocking B lymphocyte antigen function in this matter prevents cytokine synthesis by immune cells, such as T cells, and thus acts as an immunosuppressant. Moreover, the lack of costimulation may also be sufficient to anergize the T cells, thereby inducing tolerance in a subject. Induction of long-term tolerance by B lymphocyte antigen-blocking reagents may avoid the necessity of repeated administration of these blocking reagents. To achieve sufficient immunosuppression or tolerance in a subject, it may also be necessary to block the function of a combination of B lymphocyte antigens.

The efficacy of particular blocking reagents in preventing organ transplant rejection or GVHD can be assessed using animal models that are predictive of efficacy in humans. Examples of appropriate systems which can be used include allogeneic cardiac grafts in rats and xenogeneic pancreatic islet cell grafts in mice, both of which have been used to examine the immunosuppressive effects of CTLA4Ig fusion proteins *in vivo* as described in Lenschow *et al.*, Science *257*:789-792 (1992) and Turka *et al.*, Proc. Natl. Acad. Sci USA, *89*:11102-11105 (1992). In addition, murine models of GVHD (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 846-847) can be used to determine the effect of blocking B lymphocyte antigen function *in vivo* on the development of that disease.

Blocking antigen function may also be therapeutically useful for treating autoimmune diseases. Many autoimmune disorders are the result of inappropriate activation of T cells that are reactive against self tissue and which promote the production of cytokines and autoantibodies involved in the pathology of the diseases. Preventing the activation of autoreactive T cells may reduce or eliminate disease symptoms. Administration of reagents which block costimulation of T cells by disrupting receptor:ligand interactions of B lymphocyte antigens can be used to inhibit T cell activation and prevent production of autoantibodies or T cell-derived cytokines which may be involved in the disease process. Additionally, blocking reagents may induce antigen-specific tolerance of autoreactive T cells which could lead to long-term relief from the disease. The efficacy of blocking reagents in preventing or alleviating autoimmune disorders can be determined using a number

of well-characterized animal models of human autoimmune diseases. Examples include murine experimental autoimmune encephalitis, systemic lupus erythmatosis in MRL/*lpr/lpr* mice or NZB hybrid mice, murine autoimmune collagen arthritis, diabetes mellitus in NOD mice and BB rats, and murine experimental myasthenia gravis (see Paul ed., Fundamental Immunology, Raven Press, New York, 1989, pp. 840-856).

Upregulation of an antigen function (preferably a B lymphocyte antigen function), as a means of up regulating immune responses, may also be useful in therapy. Upregulation of immune responses may be in the form of enhancing an existing immune response or eliciting an initial immune response. For example, enhancing an immune response through stimulating B lymphocyte antigen function may be useful in cases of viral infection. In addition, systemic viral diseases such as influenza, the common cold, and encephalitis might be alleviated by the administration of stimulatory forms of B lymphocyte antigens systemically.

Alternatively, anti-viral immune responses may be enhanced in an infected patient by removing T cells from the patient, costimulating the T cells *in vitro* with viral antigen-pulsed APCs either expressing a peptide of the present invention or together with a stimulatory form of a soluble peptide of the present invention and reintroducing the *in vitro* activated T cells into the patient. Another method of enhancing anti-viral immune responses would be to isolate infected cells from a patient, transfect them with a nucleic acid encoding a protein of the present invention as described herein such that the cells express all or a portion of the protein on their surface, and reintroduce the transfected cells into the patient. The infected cells would now be capable of delivering a costimulatory signal to, and thereby activate, T cells *in vivo*.

In another application, up regulation or enhancement of antigen function (preferably B lymphocyte antigen function) may be useful in the induction of tumor immunity. Tumor cells (*e.g.*, sarcoma, melanoma, lymphoma, leukemia, neuroblastoma, carcinoma) transfected with a nucleic acid encoding at least one peptide of the present invention can be administered to a subject to overcome tumor-specific tolerance in the subject. If desired, the tumor cell can be transfected to express a combination of peptides. For example, tumor cells obtained from a patient can be transfected *ex vivo* with an expression vector directing the expression of a peptide having B7-2-like activity alone, or in conjunction with a peptide having B7-1-

like activity and/or B7-3-like activity. The transfected tumor cells are returned to the patient to result in expression of the peptides on the surface of the transfected cell. Alternatively, gene therapy techniques can be used to target a tumor cell for transfection *in vivo.*

The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient amounts of MHC class I or MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (*e.g.*, a cytoplasmic-domain truncated portion) of an MHC class I α chain protein and β_2 microglobulin protein or an MHC class II α chain protein and an MHC class II β chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a peptide having the activity of a B lymphocyte antigen (*e.g.*, B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for thymocyte or splenocyte cytotoxicity include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Herrmann et al., Proc. Natl. Acad. Sci. USA 78:2488-2492, 1981; Herrmann et al., J. Immunol. 128:1968-1974, 1982; Handa et al., J. Immunol. 135:1564-1572, 1985; Takai et al., J.

Immunol. 137:3494-3500, 1986; Bowmanet al., J. Virology 61:1992-1998; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., Cellular Immunology 133:327-341, 1991; Brown et al., J. Immunol. 153:3079-3092, 1994.

Assays for T-cell-dependent immunoglobulin responses and isotype switching (which will identify, among others, proteins that modulate T-cell dependent antibody responses and that affect Th1/Th2 profiles) include, without limitation, those described in: Maliszewski, J. Immunol. 144:3028-3033, 1990; and Assays for B cell function: *In vitro* antibody production, Mond, J.J. and Brunswick, M. In *Current Protocols in Immunology*. J.E.e.a. Coligan eds. Vol 1 pp. 3.8.1-3.8.16, John Wiley and Sons, Toronto. 1994.

Mixed lymphocyte reaction (MLR) assays (which will identify, among others, proteins that generate predominantly Th1 and CTL responses) include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 3, In Vitro assays for Mouse Lymphocyte Function 3.1-3.19; Chapter 7, Immunologic studies in Humans); Takai et al., J. Immunol. 137:3494-3500, 1986; Takai et al., J. Immunol. 140:508-512, 1988; Bertagnolli et al., J. Immunol. 149:3778-3783, 1992.

Dendritic cell-dependent assays (which will identify, among others, proteins expressed by dendritic cells that activate naive T-cells) include, without limitation, those described in: Guery et al., J. Immunol. 134:536-544, 1995; Inaba et al., Journal of Experimental Medicine 173:549-559, 1991; Macatonia et al., Journal of Immunology 154:5071-5079, 1995; Porgador et al., Journal of Experimental Medicine 182:255-260, 1995; Nair et al., Journal of Virology 67:4062-4069, 1993; Huang et al., Science 264:961-965, 1994; Macatonia et al., Journal of Experimental Medicine 169:1255-1264, 1989; Bhardwaj et al., Journal of Clinical Investigation 94:797-807, 1994; and Inaba et al., Journal of Experimental Medicine 172:631-640, 1990.

Assays for lymphocyte survival/apoptosis (which will identify, among others, proteins that prevent apoptosis after superantigen induction and proteins that regulate lymphocyte homeostasis) include, without limitation, those described in: Darzynkiewicz et al., Cytometry 13:795-808, 1992; Gorczyca et al., Leukemia 7:659-670, 1993; Gorczyca et al., Cancer Research 53:1945-1951, 1993; Itoh et al., Cell 66:233-243, 1991; Zacharchuk, Journal of Immunology 145:4037-4045, 1990; Zamai et

al., Cytometry 14:891-897, 1993; Gorczyca et al., International Journal of Oncology 1:639-648, 1992.

Assays for proteins that influence early steps of T-cell commitment and development include, without limitation, those described in: Antica et al., Blood 84:111-117, 1994; Fine et al., Cellular Immunology 155:111-122, 1994; Galy et al., Blood 85:2770-2778, 1995; Toki et al., Proc. Nat. Acad Sci. USA 88:7548-7551, 1991.

Hematopoiesis Regulating Activity

A protein of the present invention may be useful in regulation of hematopoiesis and, consequently, in the treatment of myeloid or lymphoid cell deficiencies. Even marginal biological activity in support of colony forming cells or of factor-dependent cell lines indicates involvement in regulating hematopoiesis, e.g. in supporting the growth and proliferation of erythroid progenitor cells alone or in combination with other cytokines, thereby indicating utility, for example, in treating various anemias or for use in conjunction with irradiation/chemotherapy to stimulate the production of erythroid precursors and/or erythroid cells; in supporting the growth and proliferation of myeloid cells such as granulocytes and monocytes/macrophages (i.e., traditional CSF activity) useful, for example, in conjunction with chemotherapy to prevent or treat consequent myelo-suppression; in supporting the growth and proliferation of megakaryocytes and consequently of platelets thereby allowing prevention or treatment of various platelet disorders such as thrombocytopenia, and generally for use in place of or complimentary to platelet transfusions; and/or in supporting the growth and proliferation of hematopoietic stem cells which are capable of maturing to any and all of the above-mentioned hematopoietic cells and therefore find therapeutic utility in various stem cell disorders (such as those usually treated with transplantation, including, without limitation, aplastic anemia and paroxysmal nocturnal hemoglobinuria), as well as in repopulating the stem cell compartment post irradiation/chemotherapy, either *in-vivo* or *ex-vivo* (i.e., in conjunction with bone marrow transplantation or with peripheral progenitor cell transplantation (homologous or heterologous)) as normal cells or genetically manipulated for gene therapy.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for proliferation and differentiation of various hematopoietic lines are cited above.

Assays for embryonic stem cell differentiation (which will identify, among others, proteins that influence embryonic differentiation hematopoiesis) include, without limitation, those described in: Johansson et al. Cellular Biology 15:141-151, 1995; Keller et al., Molecular and Cellular Biology 13:473-486, 1993; McClanahan et al., Blood 81:2903-2915, 1993.

Assays for stem cell survival and differentiation (which will identify, among others, proteins that regulate lympho-hematopoiesis) include, without limitation, those described in: Methylcellulose colony forming assays, Freshney, M.G. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 265-268, Wiley-Liss, Inc., New York, NY. 1994; Hirayama et al., Proc. Natl. Acad. Sci. USA 89:5907-5911, 1992; Primitive hematopoietic colony forming cells with high proliferative potential, McNiece, I.K. and Briddell, R.A. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 23-39, Wiley-Liss, Inc., New York, NY. 1994; Neben et al., Experimental Hematology 22:353-359, 1994; Cobblestone area forming cell assay, Ploemacher, R.E. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 1-21, Wiley-Liss, Inc.., New York, NY. 1994; Long term bone marrow cultures in the presence of stromal cells, Spooncer, E., Dexter, M. and Allen, T. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 163-179, Wiley-Liss, Inc., New York, NY. 1994; Long term culture initiating cell assay, Sutherland, H.J. In *Culture of Hematopoietic Cells.* R.I. Freshney, *et al.* eds. Vol pp. 139-162, Wiley-Liss, Inc., New York, NY. 1994.

Tissue Growth Activity

A protein of the present invention also may have utility in compositions used for bone, cartilage, tendon, ligament and/or nerve tissue growth or regeneration, as well as for wound healing and tissue repair and replacement, and in the treatment of burns, incisions and ulcers.

A protein of the present invention, which induces cartilage and/or bone growth in circumstances where bone is not normally formed, has application in the healing of bone fractures and cartilage damage or defects in humans and other animals. Such a preparation employing a protein of the invention may have prophylactic use in closed as well as open fracture reduction and also in the improved fixation of artificial joints. *De novo* bone formation induced by an

osteogenic agent contributes to the repair of congenital, trauma induced, or oncologic resection induced craniofacial defects, and also is useful in cosmetic plastic surgery.

A protein of this invention may also be used in the treatment of periodontal disease, and in other tooth repair processes. Such agents may provide an environment to attract bone-forming cells, stimulate growth of bone-forming cells or induce differentiation of progenitors of bone-forming cells. A protein of the invention may also be useful in the treatment of osteoporosis or osteoarthritis, such as through stimulation of bone and/or cartilage repair or by blocking inflammation or processes of tissue destruction (collagenase activity, osteoclast activity, etc.) mediated by inflammatory processes.

Another category of tissue regeneration activity that may be attributable to the protein of the present invention is tendon/ligament formation. A protein of the present invention, which induces tendon/ligament-like tissue or other tissue formation in circumstances where such tissue is not normally formed, has application in the healing of tendon or ligament tears, deformities and other tendon or ligament defects in humans and other animals. Such a preparation employing a tendon/ligament-like tissue inducing protein may have prophylactic use in preventing damage to tendon or ligament tissue, as well as use in the improved fixation of tendon or ligament to bone or other tissues, and in repairing defects to tendon or ligament tissue. De novo tendon/ligament-like tissue formation induced by a composition of the present invention contributes to the repair of congenital, trauma induced, or other tendon or ligament defects of other origin, and is also useful in cosmetic plastic surgery for attachment or repair of tendons or ligaments. The compositions of the present invention may provide an environment to attract tendon- or ligament-forming cells, stimulate growth of tendon- or ligament-forming cells, induce differentiation of progenitors of tendon- or ligament-forming cells, or induce growth of tendon/ligament cells or progenitors *ex vivo* for return *in vivo* to effect tissue repair. The compositions of the invention may also be useful in the treatment of tendinitis, carpal tunnel syndrome and other tendon or ligament defects. The compositions may also include an appropriate matrix and/or sequestering agent as a carrier as is well known in the art.

The protein of the present invention may also be useful for proliferation of neural cells and for regeneration of nerve and brain tissue, *i.e.* for the treatment of central and peripheral nervous system diseases and neuropathies, as well as

mechanical and traumatic disorders, which involve degeneration, death or trauma to neural cells or nerve tissue. More specifically, a protein may be used in the treatment of diseases of the peripheral nervous system, such as peripheral nerve injuries, peripheral neuropathy and localized neuropathies, and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome. Further conditions which may be treated in accordance with the present invention include mechanical and traumatic disorders, such as spinal cord disorders, head trauma and cerebrovascular diseases such as stroke. Peripheral neuropathies resulting from chemotherapy or other medical therapies may also be treatable using a protein of the invention..

Proteins of the invention may also be useful to promote better or faster closure of non-healing wounds, including without limitation pressure ulcers, ulcers associated with vascular insufficiency, surgical and traumatic wounds, and the like.

It is expected that a protein of the present invention may also exhibit activity for generation or regeneration of other tissues, such as organs (including, for example, pancreas, liver, intestine, kidney, skin, endothelium), muscle (smooth, skeletal or cardiac) and vascular (including vascular endothelium) tissue, or for promoting the growth of cells comprising such tissues. Part of the desired effects may be by inhibition or modulation of fibrotic scarring to allow normal tissue to regenerate. A protein of the invention may also exhibit angiogenic activity.

A protein of the present invention may also be useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion injury in various tissues, and conditions resulting from systemic cytokine damage.

A protein of the present invention may also be useful for promoting or inhibiting differentiation of tissues described above from precursor tissues or cells; or for inhibiting the growth of tissues described above.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for tissue generation activity include, without limitation, those described in: International Patent Publication No. WO95/16035 (bone, cartilage, tendon); International Patent Publication No. WO95/05846 (nerve, neuronal); International Patent Publication No. WO91/07491 (skin, endothelium).

Assays for wound healing activity include, without limitation, those described in: Winter, Epidermal Wound Healing, pps. 71-112 (Maibach, HI and Rovee, DT,

eds.), Year Book Medical Publishers, Inc., Chicago, as modified by Eaglstein and Mertz, J. Invest. Dermatol 71:382-84 (1978).

Activin/Inhibin Activity

A protein of the present invention may also exhibit activin- or inhibin-related activities. Inhibins are characterized by their ability to inhibit the release of follicle stimulating hormone (FSH), while activins and are characterized by their ability to stimulate the release of follicle stimulating hormone (FSH). Thus, a protein of the present invention, alone or in heterodimers with a member of the inhibin α family, may be useful as a contraceptive based on the ability of inhibins to decrease fertility in female mammals and decrease spermatogenesis in male mammals. Administration of sufficient amounts of other inhibins can induce infertility in these mammals. Alternatively, the protein of the invention, as a homodimer or as a heterodimer with other protein subunits of the inhibin-β group, may be useful as a fertility inducing therapeutic, based upon the ability of activin molecules in stimulating FSH release from cells of the anterior pituitary. See, for example, United States Patent 4,798,885. A protein of the invention may also be useful for advancement of the onset of fertility in sexually immature mammals, so as to increase the lifetime reproductive performance of domestic animals such as cows, sheep and pigs.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for activin/inhibin activity include, without limitation, those described in: Vale et al., Endocrinology 91:562-572, 1972; Ling et al., Nature 321:779-782, 1986; Vale et al., Nature 321:776-779, 1986; Mason et al., Nature 318:659-663, 1985; Forage et al., Proc. Natl. Acad. Sci. USA 83:3091-3095, 1986.

Chemotactic/Chemokinetic Activity

A protein of the present invention may have chemotactic or chemokinetic activity (e.g., act as a chemokine) for mammalian cells, including, for example, monocytes, fibroblasts, neutrophils, T-cells, mast cells, eosinophils, epithelial and/or endothelial cells. Chemotactic and chemokinetic proteins can be used to mobilize or attract a desired cell population to a desired site of action. Chemotactic or chemokinetic proteins provide particular advantages in treatment of wounds and

other trauma to tissues, as well as in treatment of localized infections. For example, attraction of lymphocytes, monocytes or neutrophils to tumors or sites of infection may result in improved immune responses against the tumor or infecting agent.

A protein or peptide has chemotactic activity for a particular cell population if it can stimulate, directly or indirectly, the directed orientation or movement of such cell population. Preferably, the protein or peptide has the ability to directly stimulate directed movement of cells. Whether a particular protein has chemotactic activity for a population of cells can be readily determined by employing such protein or peptide in any known assay for cell chemotaxis.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28; Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25: 1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153: 1762-1768, 1994.

<u>Hemostatic and Thrombolytic Activity</u>

A protein of the invention may also exhibit hemostatic or thrombolytic activity. As a result, such a protein is expected to be useful in treatment of various coagulation disorders (including hereditary disorders, such as hemophilias) or to enhance coagulation and other hemostatic events in treating wounds resulting from trauma, surgery or other causes. A protein of the invention may also be useful for dissolving or inhibiting formation of thromboses and for treatment and prevention of conditions resulting therefrom (such as, for example, infarction of cardiac and central nervous system vessels (e.g., stroke).

The activity of a protein of the invention may, among other means, be measured by the following methods:

Assay for hemostatic and thrombolytic activity include, without limitation, those described in: Linet et al., J. Clin. Pharmacol. 26:131-140, 1986; Burdick et al., Thrombosis Res. 45:413-419, 1987; Humphrey et al., Fibrinolysis 5:71-79 (1991); Schaub, Prostaglandins 35:467-474, 1988.

Receptor/Ligand Activity

A protein of the present invention may also demonstrate activity as receptors, receptor ligands or inhibitors or agonists of receptor/ligand interactions. Examples of such receptors and ligands include, without limitation, cytokine receptors and their ligands, receptor kinases and their ligands, receptor phosphatases and their ligands, receptors involved in cell-cell interactions and their ligands (including without limitation, cellular adhesion molecules (such as selectins, integrins and their ligands) and receptor/ligand pairs involved in antigen presentation, antigen recognition and development of cellular and humoral immune responses). Receptors and ligands are also useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. A protein of the present invention (including, without limitation, fragments of receptors and ligands) may themselves be useful as inhibitors of receptor/ligand interactions.

The activity of a protein of the invention may, among other means, be measured by the following methods:

Suitable assays for receptor-ligand activity include without limitation those described in:Current Protocols in Immunology, Ed by J.E. Coligan, A.M. Kruisbeek, D.H. Margulies, E.M. Shevach, W.Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 7.28, Measurement of Cellular Adhesion under static conditions 7.28.1-7.28.22), Takai et al., Proc. Natl. Acad. Sci. USA 84:6864-6868, 1987; Bierer et al., J. Exp. Med. 168:1145-1156, 1988; Rosenstein et al., J. Exp. Med. 169:149-160 1989; Stoltenborg et al., J. Immunol. Methods 175:59-68, 1994; Stitt et al., Cell 80:661-670, 1995.

Anti-Inflammatory Activity

Proteins of the present invention may also exhibit anti-inflammatory activity. The anti-inflammatory activity may be achieved by providing a stimulus to cells involved in the inflammatory response, by inhibiting or promoting cell-cell interactions (such as, for example, cell adhesion), by inhibiting or promoting

chemotaxis of cells involved in the inflammatory process, inhibiting or promoting cell extravasation, or by stimulating or suppressing production of other factors which more directly inhibit or promote an inflammatory response. Proteins exhibiting such activities can be used to treat inflammatory conditions including chronic or acute conditions), including without limitation inflammation associated with infection (such as septic shock, sepsis or systemic inflammatory response syndrome (SIRS)), ischemia-reperfusion injury, endotoxin lethality, arthritis, complement-mediated hyperacute rejection, nephritis, cytokine or chemokine-induced lung injury, inflammatory bowel disease, Crohn's disease or resulting from over production of cytokines such as TNF or IL-1. Proteins of the invention may also be useful to treat anaphylaxis and hypersensitivity to an antigenic substance or material.

Tumor Inhibition Activity

In addition to the activities described above for immunological treatment or prevention of tumors, a protein of the invention may exhibit other anti-tumor activities. A protein may inhibit tumor growth directly or indirectly (such as, for example, via ADCC). A protein may exhibit its tumor inhibitory activity by acting on tumor tissue or tumor precursor tissue, by inhibiting formation of tissues necessary to support tumor growth (such as, for example, by inhibiting angiogenesis), by causing production of other factors, agents or cell types which inhibit tumor growth, or by suppressing, eliminating or inhibiting factors, agents or cell types which promote tumor growth.

Other Activities

A protein of the invention may also exhibit one or more of the following additional activities or effects: inhibiting the growth, infection or function of, or killing, infectious agents, including, without limitation, bacteria, viruses, fungi and other parasites; effecting (suppressing or enhancing) bodily characteristics, including, without limitation, height, weight, hair color, eye color, skin, fat to lean ratio or other tissue pigmentation, or organ or body part size or shape (such as, for example, breast augmentation or diminution, change in bone form or shape); effecting biorhythms or caricadic cycles or rhythms; effecting the fertility of male or female subjects; effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination

of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional factors or component(s); effecting behavioral characteristics, including, without limitation, appetite, libido, stress, cognition (including cognitive disorders), depression (including depressive disorders) and violent behaviors; providing analgesic effects or other pain reducing effects; promoting differentiation and growth of embryonic stem cells in lineages other than hematopoietic lineages; hormonal or endocrine activity; in the case of enzymes, correcting deficiencies of the enzyme and treating deficiency-related diseases; treatment of hyperproliferative disorders (such as, for example, psoriasis); immunoglobulin-like activity (such as, for example, the ability to bind antigens or complement); and the ability to act as an antigen in a vaccine composition to raise an immune response against such protein or another material or entity which is cross-reactive with such protein.

ADMINISTRATION AND DOSING

A protein of the present invention (from whatever source derived, including without limitation from recombinant and non-recombinant sources) may be used in a pharmaceutical composition when combined with a pharmaceutically acceptable carrier. Such a composition may also contain (in addition to protein and a carrier) diluents, fillers, salts, buffers, stabilizers, solubilizers, and other materials well known in the art. The term "pharmaceutically acceptable" means a non-toxic material that does not interfere with the effectiveness of the biological activity of the active ingredient(s). The characteristics of the carrier will depend on the route of administration. The pharmaceutical composition of the invention may also contain cytokines, lymphokines, or other hematopoietic factors such as M-CSF, GM-CSF, TNF, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IFN, TNF0, TNF1, TNF2, G-CSF, Meg-CSF, thrombopoietin, stem cell factor, and erythropoietin. The pharmaceutical composition may further contain other agents which either enhance the activity of the protein or compliment its activity or use in treatment. Such additional factors and/or agents may be included in the pharmaceutical composition to produce a synergistic effect with protein of the invention, or to minimize side effects. Conversely, protein of the present invention may be included in formulations of the particular cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent to minimize side effects of the cytokine, lymphokine, other hematopoietic factor, thrombolytic or anti-thrombotic factor, or anti-inflammatory agent.

A protein of the present invention may be active in multimers (e.g., heterodimers or homodimers) or complexes with itself or other proteins. As a result, pharmaceutical compositions of the invention may comprise a protein of the invention in such multimeric or complexed form.

The pharmaceutical composition of the invention may be in the form of a complex of the protein(s) of present invention along with protein or peptide antigens. The protein and/or peptide antigen will deliver a stimulatory signal to both B and T lymphocytes. B lymphocytes will respond to antigen through their surface immunoglobulin receptor. T lymphocytes will respond to antigen through the T cell receptor (TCR) following presentation of the antigen by MHC proteins. MHC and structurally related proteins including those encoded by class I and class II MHC genes on host cells will serve to present the peptide antigen(s) to T lymphocytes. The

antigen components could also be supplied as purified MHC-peptide complexes alone or with co-stimulatory molecules that can directly signal T cells. Alternatively antibodies able to bind surface immunolgobulin and other molecules on B cells as well as antibodies able to bind the TCR and other molecules on T cells can be combined with the pharmaceutical composition of the invention.

The pharmaceutical composition of the invention may be in the form of a liposome in which protein of the present invention is combined, in addition to other pharmaceutically acceptable carriers, with amphipathic agents such as lipids which exist in aggregated form as micelles, insoluble monolayers, liquid crystals, or lamellar layers in aqueous solution. Suitable lipids for liposomal formulation include, without limitation, monoglycerides, diglycerides, sulfatides, lysolecithin, phospholipids, saponin, bile acids, and the like. Preparation of such liposomal formulations is within the level of skill in the art, as disclosed, for example, in U.S. Patent No. 4,235,871; U.S. Patent No. 4,501,728; U.S. Patent No. 4,837,028; and U.S. Patent No. 4,737,323, all of which are incorporated herein by reference.

As used herein, the term "therapeutically effective amount" means the total amount of each active component of the pharmaceutical composition or method that is sufficient to show a meaningful patient benefit, i.e., treatment, healing, prevention or amelioration of the relevant medical condition, or an increase in rate of treatment, healing, prevention or amelioration of such conditions. When applied to an individual active ingredient, administered alone, the term refers to that ingredient alone. When applied to a combination, the term refers to combined amounts of the active ingredients that result in the therapeutic effect, whether administered in combination, serially or simultaneously.

In practicing the method of treatment or use of the present invention, a therapeutically effective amount of protein of the present invention is administered to a mammal having a condition to be treated. Protein of the present invention may be administered in accordance with the method of the invention either alone or in combination with other therapies such as treatments employing cytokines, lymphokines or other hematopoietic factors. When co-administered with one or more cytokines, lymphokines or other hematopoietic factors, protein of the present invention may be administered either simultaneously with the cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors, or sequentially. If administered sequentially, the attending physician will decide on

the appropriate sequence of administering protein of the present invention in combination with cytokine(s), lymphokine(s), other hematopoietic factor(s), thrombolytic or anti-thrombotic factors.

Administration of protein of the present invention used in the pharmaceutical composition or to practice the method of the present invention can be carried out in a variety of conventional ways, such as oral ingestion, inhalation, topical application or cutaneous, subcutaneous, intraperitoneal, parenteral or intravenous injection. Intravenous administration to the patient is preferred.

When a therapeutically effective amount of protein of the present invention is administered orally, protein of the present invention will be in the form of a tablet, capsule, powder, solution or elixir. When administered in tablet form, the pharmaceutical composition of the invention may additionally contain a solid carrier such as a gelatin or an adjuvant. The tablet, capsule, and powder contain from about 5 to 95% protein of the present invention, and preferably from about 25 to 90% protein of the present invention. When administered in liquid form, a liquid carrier such as water, petroleum, oils of animal or plant origin such as peanut oil, mineral oil, soybean oil, or sesame oil, or synthetic oils may be added. The liquid form of the pharmaceutical composition may further contain physiological saline solution, dextrose or other saccharide solution, or glycols such as ethylene glycol, propylene glycol or polyethylene glycol. When administered in liquid form, the pharmaceutical composition contains from about 0.5 to 90% by weight of protein of the present invention, and preferably from about 1 to 50% protein of the present invention.

When a therapeutically effective amount of protein of the present invention is administered by intravenous, cutaneous or subcutaneous injection, protein of the present invention will be in the form of a pyrogen-free, parenterally acceptable aqueous solution. The preparation of such parenterally acceptable protein solutions, having due regard to pH, isotonicity, stability, and the like, is within the skill in the art. A preferred pharmaceutical composition for intravenous, cutaneous, or subcutaneous injection should contain, in addition to protein of the present invention, an isotonic vehicle such as Sodium Chloride Injection, Ringer's Injection, Dextrose Injection, Dextrose and Sodium Chloride Injection, Lactated Ringer's Injection, or other vehicle as known in the art. The pharmaceutical composition of the present invention may also contain stabilizers, preservatives, buffers, antioxidants, or other additives known to those of skill in the art.

The amount of protein of the present invention in the pharmaceutical composition of the present invention will depend upon the nature and severity of the condition being treated, and on the nature of prior treatments which the patient has undergone. Ultimately, the attending physician will decide the amount of protein of the present invention with which to treat each individual patient. Initially, the attending physician will administer low doses of protein of the present invention and observe the patient's response. Larger doses of protein of the present invention may be administered until the optimal therapeutic effect is obtained for the patient, and at that point the dosage is not increased further. It is contemplated that the various pharmaceutical compositions used to practice the method of the present invention should contain about 0.01 µg to about 100 mg (preferably about 0.1ng to about 10 mg, more preferably about 0.1 µg to about 1 mg) of protein of the present invention per kg body weight.

The duration of intravenous therapy using the pharmaceutical composition of the present invention will vary, depending on the severity of the disease being treated and the condition and potential idiosyncratic response of each individual patient. It is contemplated that the duration of each application of the protein of the present invention will be in the range of 12 to 24 hours of continuous intravenous administration. Ultimately the attending physician will decide on the appropriate duration of intravenous therapy using the pharmaceutical composition of the present invention.

Protein of the invention may also be used to immunize animals to obtain polyclonal and monoclonal antibodies which specifically react with the protein. Such antibodies may be obtained using either the entire protein or fragments thereof as an immunogen. The peptide immunogens additionally may contain a cysteine residue at the carboxyl terminus, and are conjugated to a hapten such as keyhole limpet hemocyanin (KLH). Methods for synthesizing such peptides are known in the art, for example, as in R.P. Merrifield, J. Amer.Chem.Soc. 85, 2149-2154 (1963); J.L. Krstenansky, *et al.*, FEBS Lett. 211, 10 (1987). Monoclonal antibodies binding to the protein of the invention may be useful diagnostic agents for the immunodetection of the protein. Neutralizing monoclonal antibodies binding to the protein may also be useful therapeutics for both conditions associated with the protein and also in the treatment of some forms of cancer where abnormal expression of the protein is involved. In the case of cancerous cells or leukemic cells, neutralizing monoclonal

antibodies against the protein may be useful in detecting and preventing the metastatic spread of the cancerous cells, which may be mediated by the protein.

For compositions of the present invention which are useful for bone, cartilage, tendon or ligament regeneration, the therapeutic method includes administering the composition topically, systematically, or locally as an implant or device. When administered, the therapeutic composition for use in this invention is, of course, in a pyrogen-free, physiologically acceptable form. Further, the composition may desirably be encapsulated or injected in a viscous form for delivery to the site of bone, cartilage or tissue damage. Topical administration may be suitable for wound healing and tissue repair. Therapeutically useful agents other than a protein of the invention which may also optionally be included in the composition as described above, may alternatively or additionally, be administered simultaneously or sequentially with the composition in the methods of the invention. Preferably for bone and/or cartilage formation, the composition would include a matrix capable of delivering the protein-containing composition to the site of bone and/or cartilage damage, providing a structure for the developing bone and cartilage and optimally capable of being resorbed into the body. Such matrices may be formed of materials presently in use for other implanted medical applications.

The choice of matrix material is based on biocompatibility, biodegradability, mechanical properties, cosmetic appearance and interface properties. The particular application of the compositions will define the appropriate formulation. Potential matrices for the compositions may be biodegradable and chemically defined calcium sulfate, tricalciumphosphate, hydroxyapatite, polylactic acid, polyglycolic acid and polyanhydrides. Other potential materials are biodegradable and biologically well-defined, such as bone or dermal collagen. Further matrices are comprised of pure proteins or extracellular matrix components. Other potential matrices are nonbiodegradable and chemically defined, such as sintered hydroxapatite, bioglass, aluminates, or other ceramics. Matrices may be comprised of combinations of any of the above mentioned types of material, such as polylactic acid and hydroxyapatite or collagen and tricalciumphosphate. The bioceramics may be altered in composition, such as in calcium-aluminate-phosphate and processing to alter pore size, particle size, particle shape, and biodegradability.

Presently preferred is a 50:50 (mole weight) copolymer of lactic acid and glycolic acid in the form of porous particles having diameters ranging from 150 to 800

microns. In some applications, it will be useful to utilize a sequestering agent, such as carboxymethyl cellulose or autologous blood clot, to prevent the protein compositions from disassociating from the matrix.

A preferred family of sequestering agents is cellulosic materials such as alkylcelluloses (including hydroxyalkylcelluloses), including methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxypropyl-methylcellulose, and carboxymethylcellulose, the most preferred being cationic salts of carboxymethylcellulose (CMC). Other preferred sequestering agents include hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer and poly(vinyl alcohol). The amount of sequestering agent useful herein is 0.5-20 wt%, preferably 1-10 wt% based on total formulation weight, which represents the amount necessary to prevent desorbtion of the protein from the polymer matrix and to provide appropriate handling of the composition, yet not so much that the progenitor cells are prevented from infiltrating the matrix, thereby providing the protein the opportunity to assist the osteogenic activity of the progenitor cells.

In further compositions, proteins of the invention may be combined with other agents beneficial to the treatment of the bone and/or cartilage defect, wound, or tissue in question. These agents include various growth factors such as epidermal growth factor (EGF), platelet derived growth factor (PDGF), transforming growth factors (TGF-α and TGF-β), and insulin-like growth factor (IGF).

The therapeutic compositions are also presently valuable for veterinary applications. Particularly domestic animals and thoroughbred horses, in addition to humans, are desired patients for such treatment with proteins of the present invention.

The dosage regimen of a protein-containing pharmaceutical composition to be used in tissue regeneration will be determined by the attending physician considering various factors which modify the action of the proteins, e.g., amount of tissue weight desired to be formed, the site of damage, the condition of the damaged tissue, the size of a wound, type of damaged tissue (e.g., bone), the patient's age, sex, and diet, the severity of any infection, time of administration and other clinical factors. The dosage may vary with the type of matrix used in the reconstitution and with inclusion of other proteins in the pharmaceutical composition. For example, the addition of other known growth factors, such as IGF I (insulin like growth factor I),

to the final composition, may also effect the dosage. Progress can be monitored by periodic assessment of tissue/bone growth and/or repair, for example, X-rays, histomorphometric determinations and tetracycline labeling.

Polynucleotides of the present invention can also be used for gene therapy. Such polynucleotides can be introduced either *in vivo* or *ex vivo* into cells for expression in a mammalian subject. Polynucleotides of the invention may also be administered by other known methods for introduction of nucleic acid into a cell or organism (including, without limitation, in the form of viral vectors or naked DNA).

Cells may also be cultured *ex vivo* in the presence of proteins of the present invention in order to proliferate or to produce a desired effect on or activity in such cells. Treated cells can then be introduced *in vivo* for therapeutic purposes.

Patent and literature references cited herein are incorporated by reference as if fully set forth.

TABLE 3

Sel.	Species	Stage	Tissue	Cell Type	Treatment
AA	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AC	Human	Adult	Placenta	26yrs., 1 specimen	None
AD	Mouse	Fetal	Embryo	ES cells	LIF
AE	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AF	Mouse	Fetal	Brain	N/A	None
AG	Mouse	Fetal	Brain	N/A	None
AH	Mouse	Fetal	Thymus	N/A	None
AJ	Human	Adult	Testes	10-61yrs., pool of 11	None
AK	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AM	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
AN	Mouse	Adult	Bone Marrow	Stromal cell line FCM-4	None
AO	Mouse	Adult	Thymus	N/A	None
AP	Human	Adult	Placenta	26yrs., 1 specimen	None
AQ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AR	Human	Adult	Retina	16-75yrs., pool of 76	None
AS	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
AT	Human	Adult	Blood	Lymphocytes+Dendritic Cells	MLR
AU	Human	Adult	Testes	10-61yrs., pool of 11	None
AV	Mouse	Adult	Spleen	N/A	ConA + dendritic cells
AW	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
AX	Human	Adult	Testes	10-61yrs., pool of 11	None
AY	Human	Adult	Retina	16-75yrs., pool of 76	None
AZ	Human	Adult	Colon	Adenocarcinoma Caco2	None
BB	Human	N/A	Blood	Adult PBMC/TH1or2	TH1or2 driven response
BC	Mouse	Fetal	Embryo	ES cells	LIF
BD	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
BG	Human	Adult	Brain	N/A	None
BH	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
BI	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
BJ	Human	Adult	Ovary	PA-1 Teratocarcinoma	RA or Activin or None
BL	Human	Adult	Testes	10-61yrs., pool of 11	None
BN	Human	Adult	Placenta	26yrs., 1 specimen	None
BO	Human	Adult	Retina	16-75yrs., pool of 76	None
BP	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None

BT	Human	Adult	Blood	PBMC	None
BV	Human	Adult	Brain	N/A	None
BZ	Human	Fetal	Kidney	19-23wks., M/F pool of 5	None
C	Human	Adult	Blood	PBMC	conA + PMA
CA	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
CC	Human	Adult	Brain	N/A	None
CJ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
CL	Human	Adult	Retina	16-75yrs., pool of 76	None
CR	Human	Adult	Testes	10-61yrs., pool of 11	None
D	Human	Adult	Blood	PBMC	conA + PMA
DD	Human	Adult	Testes	10-61yrs., pool of 11	None
DG	Human	Adult	Placenta	26yrs., 1 specimen	None
DH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DI	Human	Adult	Testes	10-61yrs., pool of 11	None
DL	Human	Adult	Brain	N/A	None
DO	Human	Adult	Testes	10-61yrs., pool of 11	None
DP	Mouse	Fetal	Embryo	ES cell embryoid bodies	2-12 days post LIF
DU	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
DY	Human	Adult	Brain	N/A	None
DZ	Human	Adult	Testes	Teratocarcinoma NCCIT	None
EF	Human	Adult	Liver	N/A	None
EK	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
EM	Human	Fetal	Kidney	N/A	None
EN	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FE	Human	Adult	Brain	N/A	None
FH	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
FQ	Human	Adult	Testes	10-61yrs., pool of 11	None
FT	Chicken	Fetal	Fetal Lung	Fetal Lung	N/A
FU	Chicken	Fetal	Limb Bud	Fetal St. 23 Limb Bud	N/A
FZ	Human	Adult	Placenta	26yrs., 1 specimen	None
G	Human	Adult	Blood	PBMC	conA + PMA
GA	Human	Adult	Testes	10-61yrs., pool of 11	None
GC	Human	Adult	Testes	10-61yrs., pool of 11	None
GE	Human	Adult	Brain	N/A	None
GJ	Mouse	Adult	Spleen	N/A	IL-12
GL	Mouse	Adult	Lymph Node	N/A	IL-12
GW	Chicken	26	Limb Bud	Fetal St.26 Limb Bud	N/A

GZ	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
H	Human	Adult	Blood	PBMC	PHA+PMA+MLR
HB	Human	Fetal	Kidney	N/A	None
HE	Human	Adult	Testes	10-61yrs., pool of 11	None
HL	Human	Fetal	Kidney	N/A	None
HR	Human	Adult	Brain	N/A	None
HS	Human	Adult	Brain	N/A	None
HV	Human	Adult	Testes	10-61yrs., pool of 11	None
HX	Human	Adult	Brain	Hippocampus	None
IB	Human	Fetal	Carcinoma	NTD2-1	None
IE	Human	Fetal	Brain	19-23wks., M/F pool of 5	None
IF	Human	Adult	Uterus	N/A	None
IJ	Human	Adult	Blood	PBMC	GCSF in vivo
IK	Human	Adult	Retina	Retinoblastoma Y79	None
IR	Human	Adult	Brain	Hippocampus	None
IS	Human	Adult	Trachea	N/A	None
IT	Human	Adult	Brain	Thalamus	None
IU	Human	Adult	Thyroid	N/A	None
IW	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
IX	Human	Adult	Brain	N/A	None
IY	Human	Adult	Brain	N/A	None
IZ	Human	Adult	Brain	N/A	None
J	Human	Adult	Blood	PBMC	PHA+PMA+MLR
JA	Human	Adult	Retina	16-75yrs., pool of 76	None
JB	Human	Adult	Retina	16-75yrs., pool of 76	None
JF	Human	Adult	Retina	16-75yrs., pool of 76	None
JK	Human	Fetal	Kidney	N/A	None
JL	Human	Fetal	Kidney	N/A	None
JM	Human	Adult	Testes	10-61yrs., pool of 11	None
JN	Human	Adult	Retina	16-75yrs., pool of 76	None
JQ	Human	Adult	Testes	10-61yrs., pool of 11	None
JS	Human	Adult	Testes	10-61yrs., pool of 11	None
JT	Human	Adult	Retina	16-75yrs., pool of 76	None
JW	Human	Adult	Testes	10-61yrs., pool of 11	None
JY	Human	Adult	Testes	10-61yrs., pool of 11	None
JZ	Human	Adult	Retina	16-75yrs., pool of 76	None
K	Mouse	Adult	Bone Marrow	Adult Stromal cell line FCM-4	None

KA	Human	Adult	Testes	10-61yrs., pool of 11	None
KB	Human	Adult	Retina	16-75yrs., pool of 76	None
KG	Human	Adult	Testes	10-61yrs., pool of 11	None
KH	Human	Adult	Testes	10-61yrs., pool of 11	None
KI	Human	Adult	Retina	Retinoblastoma Y79	None
KJ	Human	Fetal	Brain	N/A	None
KL	Human	Adult	Brain	N/A	None
KM	Human	Adult	Retina	Retinoblastoma Y79	None
KN	Human	Adult	Blood	PBMC	GCSF in vivo
KO	Human	Adult	Uterus	N/A	None
KP	Human	Adult	Retina	16-75yrs., pool of 76	None
KQ	Human	Adult	Retina	16-75yrs., pool of 76	None
KR	Human	Adult	Retina	16-75yrs., pool of 76	None
KS	Human	Adult	Retina	16-75yrs., pool of 76	None
KT	Human	Adult	Retina	16-75yrs., pool of 76	None
KU	Human	Adult	Retina	16-75yrs., pool of 76	None
KV	Human	Adult	Retina	16-75yrs., pool of 76	None
KW	Human	Adult	Retina	16-75yrs., pool of 76	None
KX	Human	Adult	Retina	16-75yrs., pool of 76	None
KY	Human	Adult	Retina	16-75yrs., pool of 76	None
KZ	Human	Adult	Retina	16-75yrs., pool of 76	None
L	Mouse	Adult	Thymus	N/A	None
LC	Human	Adult	Retina	16-75yrs., pool of 76	None
LE	Human	Adult	Retina	16-75yrs., pool of 76	None
LF	Human	Adult	Spinal Cord	N/A	None
LG	Human	Adult	Testes	N/A	None
LH	Human	Fetal	Liver	N/A	None
LI	Human	Adult	Brain	N/A	None
LJ	Human	Fetal	Carcinoma	NTD2-1	None
LK	Human	Fetal	Carcinoma	NTD2-1	None
LL	Human	Adult	Thyroid	N/A	None
LN	Human	Adult	Uterus	N/A	None
LO	Human	Adult	Thyroid	N/A	None
LP	Human	Adult	Blood	PBMC	GCSF in vivo
LR	Human	Adult	Lymph Node	N/A	None
LS	Human	Adult	Brain	Substantia Nigra	None
LT	Human	Adult	Retina	Retinoblastoma Y79	None

LU	Human	Adult	Retina	Retinoblastoma Y79	None
LV	Human	Adult	Thyroid	N/A	None
LW	Human	Fetal	Carcinoma	NTD2-1	None
LX	Human	Fetal	Kidney	N/A	None
LZ	Human	Adult	Uterus	N/A	None
M	Human	Adult	Neural	Glioblastoma line T98G	None
MA	Human	Fetal	Carcinoma	NTD2-1	None
MB	Human	Adult	Spinal Cord	N/A	None
MC	Human	Adult	Thyroid	N/A	None
MD	Human	Fetal	Kidney	N/A	None
ME	Human	Adult	Brain	Substantia Nigra	None
MF	Human	Fetal	Kidney	N/A	None
MG	Human	Adult	Brain	Hippocampus	None
MH	Human	Adult	Brain	Thalamus	None
MI	Human	Adult	Spinal Cord	N/A	None
MJ	Human	Adult	Lymph Node	N/A	None
MK	Human	Adult	Testes	N/A	None
ML	Human	Adult	Brain	Caudate Nucleus	None
MM	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MN	Human	Adult	Brain	Hippocampus	None
MP	Human	Adult	Testes	N/A	None
MQ	Human	Adult	Testes	N/A	None
MR	Human	Adult	Testes	N/A	None
MS	Human	Adult	Testes	N/A	None
MT	Human	Adult	Testes	N/A	None
MU	Human	Adult	Testes	N/A	None
MX	Human	Adult	Retina	Retinoblastoma WERI-Rb1	None
MY	Human	Fetal	Brain	N/A	None
MZ	Human	Adult	Spinal Cord	N/A	None
N	Rat	Fetal	Pancreas	N/A	None
NA	Human	Adult	Brain	Corpus Callosum	None
NB	Human	Adult	Spinal Cord	N/A	None
NC	Human	Adult	Prostate	N/A	None
ND	Human	Adult	Prostate	N/A	None
NE	Human	Adult	Brain	Hippocampus	None
NF	Human	Adult	Brain	Substantia Nigra	None
NG	Human	Adult	Brain	Hippocampus	None

NH	Human	Adult	Brain	Thalamus	None
NHAB	Chicken	34	Limb Bud	Fetal St.34 Limb Bud	N/A
NHAE	Mouse	Adult	Tumor	N/A	IL-12
NHAG	Mouse	Adult	Bone Marrow	Dendritic Cells	LPS/gamma IFN
NHAN	Mouse	Adult	Tumor	N/A	IL-12
NHAW	Mouse	Adult	Bone Marrow	Dendritic Cells	Resting
NI	Human	Adult	Thyroid	N/A	None
NJ	Human	Adult	Pineal Gland	N/A	None
NK	Human	Adult	Pineal Gland	N/A	None
NL	Human	Fetal	Brain	N/A	None
NM	Human	Adult	Blood	Erythroleukemia TF-1	None
NN	Human	Adult	Kidney	293 embryonal carcinoma line	None
NO	Human	Adult	Brain	Substantia Nigra	None
NP	Human	Adult	Kidney	293 embryonal carcinoma line	None
NQ	Human	Adult	Blood	Erythroleukemia TF-1	None
NR	Human	Adult	Bone	RD-ES	None
NS	Human	Adult	Retina	Retinoblastoma WERI-Rb1None	
NT	Human	Adult	Brain	Corpus Callosum	None
NU	Human	Adult	Brain	Caudate Nucleus	None
NV	Human	Adult	Brain	Thalamus	None
NW	Human	Adult	Brain	Corpus Callosum	None
NX	Human	Adult	Bone	RD-ES	None
NY	Human	Adult	Brain	Substantia Nigra	None
NZ	Human	Adult	Blood	Erythroleukemia TF-1	None
O	Human	Adult	Blood	Dendritic Cells	None
P	Mouse	Fetal	Embryo	ES cell embryoid bodies	6 days post LIF
PA	Human	Adult	Bone	RD-ES	None
PB	Human	Adult	Kidney	N/A	None
PC	Human	Adult	Retina	Retinoblastoma WERI-Rb1None	
PD	Human	Fetal	Kidney	N/A	None
PE	Human	Adult	Blood	ChronicMyelogenousLeukemiaK562	None
PF	Human	Adult	Thyroid	N/A	None
PG	Human	Adult	Thyroid	N/A	None
PH	Human	Adult	Colon	Adenocarcinoma Caco2	None
PI	Human	Adult	Thyroid	N/A	None
PJ	Human	Adult	Testis	Embryonal Carcinoma NT2D1	RA for 23 days
PK	Human	Fetal	Kidney	293 cell line	None

PL	Human	Fetal	Kidney	293 cell line	None
PM	Human	Fetal	Kidney	293 cell line	None
PO	Human	Adult	Placenta	26yrs., 1 specimen	None
PP	Human	Adult	Blood	LymphoblasticLeukemiaMOLT-4	None

Table 3 Cell Type and Treatment Key:

conA: concanavalin A

GCSF: granulocyte-colony stimulating factor

INF: interferon

LIF: leukemia inhibitory factor

days post LIF: cells harvested number of days shown after LIF removal

LPS: lipopolysaccharide

MLR: mixed lymphocyte reaction

PBMC: peripheral blood mononuclear cells

PHA: phytohemagglutinin

PMA: phorbol myristate acetate

RA: retinoic acid

What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID

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SEQ ID NO:2474, SEQ ID NO:2475, SEQ ID NO:2476, SEQ ID NO:2477, SEQ ID NO:2478, SEQ ID NO:2479, SEQ ID NO:2480, SEQ ID NO:2481, SEQ ID NO:2482, SEQ ID NO:2483, SEQ ID NO:2484, SEQ ID NO:2485, SEQ ID NO:2486, SEQ ID NO:2487, SEQ ID NO:2488, SEQ ID NO:2489, SEQ ID NO:2490, SEQ ID NO:2491, SEQ ID NO:2492, SEQ ID NO:2493, SEQ ID NO:2494, SEQ ID NO:2495, SEQ ID NO:2496, SEQ ID NO:2497, SEQ ID NO:2498, SEQ ID NO:2499, and SEQ ID NO:2500;

or a complement of said sequence.

2. An isolated polynucleotide consisting of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115,

SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ ID NO:209, SEQ ID NO:210, SEQ ID NO:211, SEQ ID NO:212, SEQ ID NO:213, SEQ ID NO:214, SEQ ID NO:215, SEQ ID NO:216, SEQ ID NO:217, SEQ ID NO:218, SEQ ID NO:219, SEQ ID NO:220, SEQ ID NO:221, SEQ ID NO:222, SEQ ID NO:223, SEQ ID NO:224, SEQ ID NO:225, SEQ ID NO:226, SEQ ID NO:227, SEQ ID NO:228, SEQ ID NO:229, SEQ ID NO:230, SEQ ID NO:231, SEQ ID NO:232, SEQ ID NO:233, SEQ ID NO:234, SEQ ID NO:235, SEQ ID NO:236, SEQ ID NO:237, SEQ ID NO:238, SEQ ID NO:239, SEQ ID NO:240, SEQ ID NO:241, SEQ ID NO:242, SEQ ID NO:243, SEQ ID NO:244, SEQ ID NO:245, SEQ ID NO:246, SEQ ID NO:247, SEQ ID NO:248, SEQ ID NO:249, SEQ ID NO:250, SEQ ID NO:251, SEQ ID NO:252, SEQ ID NO:253, SEQ ID NO:254, SEQ ID NO:255, SEQ ID NO:256, SEQ ID NO:257, SEQ ID NO:258, SEQ ID NO:259, SEQ ID NO:260, SEQ ID NO:261, SEQ ID NO:262, SEQ ID NO:263, SEQ ID NO:264, SEQ ID NO:265, SEQ ID NO:266, SEQ ID NO:267, SEQ ID NO:268, SEQ ID NO:269, SEQ ID NO:270, SEQ ID NO:271, SEQ ID NO:272, SEQ ID NO:273, SEQ ID

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or a complement of said sequence.

3. An isolated polynucleotide consisting essentially of a nucleotide sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46, SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81,

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or a complement of said sequence.

4. An isolated polynucleotide comprising a nucleotide sequence which hybridizes to a sequence selected from the group consisting of:

SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, SEQ ID NO:42, SEQ ID NO:43, SEQ ID NO:44, SEQ ID NO:45, SEQ ID NO:46,

SEQ ID NO:47, SEQ ID NO:48, SEQ ID NO:49, SEQ ID NO:50, SEQ ID NO:51, SEQ ID NO:52, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO:55, SEQ ID NO:56, SEQ ID NO:57, SEQ ID NO:58, SEQ ID NO:59, SEQ ID NO:60, SEQ ID NO:61, SEQ ID NO:62, SEQ ID NO:63, SEQ ID NO:64, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, SEQ ID NO:69, SEQ ID NO:70, SEQ ID NO:71, SEQ ID NO:72, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:75, SEQ ID NO:76, SEQ ID NO:77, SEQ ID NO:78, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:81, SEQ ID NO:82, SEQ ID NO:83, SEQ ID NO:84, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:87, SEQ ID NO:88, SEQ ID NO:89, SEQ ID NO:90, SEQ ID NO:91, SEQ ID NO:92, SEQ ID NO:93, SEQ ID NO:94, SEQ ID NO:95, SEQ ID NO:96, SEQ ID NO:97, SEQ ID NO:98, SEQ ID NO:99, SEQ ID NO:100, SEQ ID NO:101, SEQ ID NO:102, SEQ ID NO:103, SEQ ID NO:104, SEQ ID NO:105, SEQ ID NO:106, SEQ ID NO:107, SEQ ID NO:108, SEQ ID NO:109, SEQ ID NO:110, SEQ ID NO:111, SEQ ID NO:112, SEQ ID NO:113, SEQ ID NO:114, SEQ ID NO:115, SEQ ID NO:116, SEQ ID NO:117, SEQ ID NO:118, SEQ ID NO:119, SEQ ID NO:120, SEQ ID NO:121, SEQ ID NO:122, SEQ ID NO:123, SEQ ID NO:124, SEQ ID NO:125, SEQ ID NO:126, SEQ ID NO:127, SEQ ID NO:128, SEQ ID NO:129, SEQ ID NO:130, SEQ ID NO:131, SEQ ID NO:132, SEQ ID NO:133, SEQ ID NO:134, SEQ ID NO:135, SEQ ID NO:136, SEQ ID NO:137, SEQ ID NO:138, SEQ ID NO:139, SEQ ID NO:140, SEQ ID NO:141, SEQ ID NO:142, SEQ ID NO:143, SEQ ID NO:144, SEQ ID NO:145, SEQ ID NO:146, SEQ ID NO:147, SEQ ID NO:148, SEQ ID NO:149, SEQ ID NO:150, SEQ ID NO:151, SEQ ID NO:152, SEQ ID NO:153, SEQ ID NO:154, SEQ ID NO:155, SEQ ID NO:156, SEQ ID NO:157, SEQ ID NO:158, SEQ ID NO:159, SEQ ID NO:160, SEQ ID NO:161, SEQ ID NO:162, SEQ ID NO:163, SEQ ID NO:164, SEQ ID NO:165, SEQ ID NO:166, SEQ ID NO:167, SEQ ID NO:168, SEQ ID NO:169, SEQ ID NO:170, SEQ ID NO:171, SEQ ID NO:172, SEQ ID NO:173, SEQ ID NO:174, SEQ ID NO:175, SEQ ID NO:176, SEQ ID NO:177, SEQ ID NO:178, SEQ ID NO:179, SEQ ID NO:180, SEQ ID NO:181, SEQ ID NO:182, SEQ ID NO:183, SEQ ID NO:184, SEQ ID NO:185, SEQ ID NO:186, SEQ ID NO:187, SEQ ID NO:188, SEQ ID NO:189, SEQ ID NO:190, SEQ ID NO:191, SEQ ID NO:192, SEQ ID NO:193, SEQ ID NO:194, SEQ ID NO:195, SEQ ID NO:196, SEQ ID NO:197, SEQ ID NO:198, SEQ ID NO:199, SEQ ID NO:200, SEQ ID NO:201, SEQ ID NO:202, SEQ ID NO:203, SEQ ID NO:204, SEQ ID NO:205, SEQ ID NO:206, SEQ ID NO:207, SEQ ID NO:208, SEQ

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or to a complement of said sequence.

5. An isolated protein encoded by an isolated polynucleotide of claim 1.

6. An isolated protein encoded by an isolated polynucleotide of claim 2.

7. An isolated protein encoded by an isolated polynucleotide of claim 3.

8. An isolated protein encoded by an isolated polynucleotide of claim 4.

SEQUENCE LISTING

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cagcantggt gattgctagc acggtaattt tgacagtttt gggagcaatc atttggttcc 300
tgtacaaaaa acattctgat tctcgtttca ccacagtttt ttcaaccgca ccccaatcgc 360
tcgag 365

<210> 6
<211> 344
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (44)

<400> 6
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aacacaataa ggaagagaga ggagaaaaag acagtcaaaa caaaaactct ggggcttccc 180
ttatcaatta cctaaataat ccttgttaaa actaagtgca ggctatgttt ccatttteta 240
cttttttatg cttcttctct tctgttcctt cagtggtggt agcgcggatg ttcaaatttt 300
cagttctcag taaagattgt atagacagtc ccacggatct cgag 344

<210> 7
<211> 161
<212> DNA
<213> Homo sapiens

<400> 7
gagatgcggg gtaagatttg ccgagttcct tttactttt ttttttttt gagatggagt 60
tttggtcttg ttgcccaagc tggagtgcaa tggcacaatc tcggttcacc acaacctcca 120
cctcccaggt tcaagtgatt ctcctgcctc agcctctcga g 161

<210> 8

<211> 329
<212> DNA
<213> Homo sapiens

<400> 8
gaattcggcc aaagaggcct agttaaattt tgtagaatca taaagaaaag caacaccttc 60
ccatcttaac tcccctagtg cctctactcc ctccacagag acaaatatct taccagttgg 120
ttgtgttttc ttttccaaac tgtatttcta aaatgtgtca atatctcttc cttttatttt 180
ttattttttg tagagacagg ggtctcactg tgctgcctag gctggtctca aactcctggc 240
ctcctacctc gacttctcat agttctggcg tgagctactg cacctggcct ccccccttatt 300
attttttttaa acatgaatgt aagctcgag 329

<210> 9
<211> 293
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (187)

<400> 9
gaattcggcc aaagaggcct atttttaact aagttatatg agtttttttg aataggtgat 60
acatttaaaa agtatttggc accatctcat ctgttctcac caactgtcac caataatatt 120
agtattactt ttatatgtca tttcagattt gtatgcatat tgcaagcaaa ttcatagtga 180
atttttnttt tttgagacag ggtctcactc ttttgcccag ggtggagtgc agtggcatga 240
ccgtggctca ctgcagcctc gacctcttgg gctcaagcca ccccaatctc gag 293

<210> 10
<211> 348
<212> DNA
<213> Homo sapiens

<400> 10
gaattcggcc aaagaggcct aggggtttca tggtgttagc caggatggtc tcaatctcct 60
tgtgatccac ctgccttggc ctcccaaagt gctgagatta caggcgttac tgcatttttc 120
tgcaccagga tctctttatt ttgtacttag gctttgcttg ctccctcttt gctttagttt 180
catcatctgt gaaacaaagg ggttaggtta gaataagaaa tttccaaaga tctttctact 240
tctcacagca cgtggtgctg tgtcgaggta acgtccttta catacctcat gaagttagtg 300
ctagttgtac catccaaacc acacataagt tctgtgaacc aactcgag 348

<210> 11
<211> 337
<212> DNA
<213> Homo sapiens

<400> 11
gaattcggcc aaagaggcct acagggactc tccagaattg tctcacattt gctcagaaac 60
aaattcactc atgttcatta attttggcat tgcatttaaa attttttttt tatttttgag 120
acagagtctt gctctgtcac ccaggctaga gtgtagtggc atgatctcgg ctcactacaa 180
cctctgcttc ccaggttcta gcaattctcc cgcctcagcc tcccaagtag ctgagaccac 240
aagtgtgtgc caccacgccc agctaatttt tgtatttttt agtaaagaca gggtttcacc 300
acattggcca agctggtctc aaattcctga cctcgag 337

<210> 12
<211> 351
<212> DNA
<213> Homo sapiens

<400> 12

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aatttaacag cagaaaatat gtatgagttt caggcggtgg tttggaatct taactttatc 120
cccttctacc tttctctttt ggtgatcttt gcagctcagt cagagggcag accctgtgaa 180
tataactcca gaatctacca aaacggggaa agtttccagc ccaactgtaa acatcagtgc 240
acatgtattg atggcgccgt gggctgcatt cctctgtgtc cccaagaact atctctcccc 300
aacttgggct gtcccaaccc tcggctggtc aaagttaccg ggcacctcga g 351

<210> 13
<211> 331
<212> DNA
<213> Homo sapiens

<400> 13
gaattcggcc aaagaggcct acgagagggt tcttgagatt aaaaagtttg acaacttttg 60
ttctattgag ttgtatcttt ctttttcata ttgattcatg ggaattctgg ggtttttttt 120
gttttgtttt ttgttttttg agatacaatc ttgttgtgtc gcccaggctg gagcacaggg 180
gcacaatctc agctcactgc aacctctgtc tccctggttc aagcgattct cctgcctcag 240
cctccagagt agctgggatt acaggcacga gaatcacttg aacctgggag gcaaggttgc 300
agtgagccga gatcgcacca cggcactcga g 331

<210> 14
<211> 257
<212> DNA
<213> Homo sapiens

<400> 14
gaattcggcc aaagaggcct agtattttgt ttcacatttg aacagtcatt cttgaggaat 60
actccatacc tgagtagaca gccatgtggc catcgcagct actaattttc atgatgctct 120
tagctccaat aattcatgct ttcagccgtg ccccaattcc aatggctgtg gtccgcagag 180
agctatcctg tgagagctat cctatagagc ttcgctgtcc aggaacagac gtcatcatga 240
tagaaagtgc actcgag 257

<210> 15
<211> 293
<212> DNA
<213> Homo sapiens

<400> 15
gaattcggcc ttcatggcct acagaaattg agagtaaaca gaaacattta taggtcattt 60
gctattgatt acgaacgtct aagtgcattt cagtgtttta tattttacaa atgtgttgga 120
attttacttt acttattctt ttgagacagg ttctcgcact ccagcctagg caacagagtg 180
agactccgtc ccaatcagtc aatcaatcaa tcaatcaata ccacagcgga gaaaatcttt 240
acaacttttg gttaggtaat gatttcttag gtaggacaca caaaacactc gag 293

<210> 16
<211> 318
<212> DNA
<213> Homo sapiens

<400> 16
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ggagacttca aagtaccttt ttcagtaatc aatagaccag ttagaacacc tcagccaaaa 120
atagcagaat ataaattatt tttgagctct cacagaactt tgctgagata cattataacc 180
tgggccataa aacaaacctc aaccaattaa tacagttgaa accagagtgt gctctctgac 240
cacagtagaa tcaaactatt aattagtaat ataataatga aaatctccac actcttaaaa 300
ataaacaaca tactcgag 318

<210> 17
<211> 314
<212> DNA

<213> Homo sapiens

<400> 17
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agccaccatg cccggtcttt acttttaaat ttatctattt ttatactata gactatttgt 120
aaataccatt aatttaattt cagttggtat tttatgacag ctgtgttgtc aagcactgac 180
cctgtcaagt tcgtactctt tctaccttag tgtgagtcat ttaatttaag gtaggattga 240
ataattgggc tatataaaat ttggtttctt agaacaatac attggtaatt atgaagattt 300
gcaggatact cgag 314

<210> 18
<211> 534
<212> DNA
<213> Homo sapiens

<400> 18
gaattcggcc ttcatggcct agtctgttca ccatcagtaa cttctactaa atgttcacta 60
atttttaaca accttgcaca tagagagtga gatttaagtt aactgttttt gttttagaat 120
tctgtaaatg ttaaatagaa gagaggcatg aaatcatttc tgataaaaat agaagttaaa 180
tctgtgttaa agggttttgt ggcccctttc tccctagctc tgtctctcag ctgaataggt 240
tgtgtcaggg agtgacaacg cagtggtgtg ttggtgctat ctgtgttgag tgaccggcaa 300
aagaccacaa aaggaaatct ttagtttccc ctccaagtct tgttctttac atgagagcat 360
aggaagcctc cagaagactt gcatgatcct agtattgagt cctcttctat gcatctatca 420
aagaaaatga gagaatttca gaggggctgg gattatttat ttatttattt atttatttta 480
gagatgggat tttgccatgt tgcccaggcc attcttgaac cccaatact cgag 534

<210> 19
<211> 315
<212> DNA
<213> Homo sapiens

<400> 19
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tgaattctgg gggaaaaaaa ttatacacag acaaaactca cataggttga tttgattatg 120
aaactaagta ttattttaat ttcagggttt ttttgttttt gttttttttg tttctgtttt 180
tgtttctgtt tttttgagaa ggagtttcgc tcttgttgcc caggctggag tgcagtggcg 240
tggtctcggc tcactgcaac ctccgcctcc caggttcaag taaatctcct acctcagcct 300
cccaagaaac tcgag 315

<210> 20
<211> 491
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (114)

<400> 20
gaattcggcc ttcatggcct agggtaatac agtgaaccca ggagcggagg ttgcagtgag 60
tcgagatcgc accactgcac tccggcctgg gcgacagatg gagactccgt ctcncaaaaa 120
aaaaaaaaaa aaaagagatg agtgaggttt ccctatgtta ccaaggctgg tcttgaactc 180
ctggcctcag gcagtcctcc cgcctcggcc tctcaaaaag cgctgggatt acaggcatga 240
gctaccaggc ctggccaagt cttttgtttt tccttccttc cttccttctt cctttctctt 300
tctttctttt ttaaaaaata gtatttagtt ttccaaacta agaccaagaa ctcttgctct 360
atataattat ttactatttc ctccatttaa ggttatatag tttttctttg aaaaaatttt 420
gtcattatca agttaaatta atacatctgt attttatgtt cttattacta ttacaactgg 480
tgtctctcga g 491

<210> 21

<211> 304
<212> DNA
<213> Mus musculus

<400> 21
gaattcggcc aagtaaaagc agggagaact ctttatctga gccatgttcc tatctcctgg 60
aacgcttcta tgcacctttc tcctccccac actttttctg agggtgacag ccagagaacc 120
agtctttgta gagaaaaacc cttttgtaca gcatatagta gaatctcaat acatggaatt 180
aagagaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatccacc aaacgaagaa aattcatata cagtcagcta ccgacagaca caccagagct 300
cgag 304

<210> 22
<211> 287
<212> DNA
<213> Mus musculus

<400> 22
gaattcggcc aaagaggcct attgaatcct cctctgccac gtcgatcatc tccatagttt 60
ccccccatat gagagcctcc tggtccccct cctgggccat ctggcttagg tgccttacac 120
tggttgcatt catttctcca agagaagttc atgttctcac atgtaggatt aggacacttc 180
cagtctccag ctcgttgctg tcctccacct ccaccacctc cactggggaa tcctccccgg 240
ccaccaccac cactgccacc tcctccatag cctccacggc actcgag 287

<210> 23
<211> 303
<212> DNA
<213> Mus musculus

<400> 23
gaattcggcc aaagaggcct agacgtccag tagaacactg aatacaagta tactggatcc 60
aatgtcactc tgtttctgtg acaaacactg tcacaaaaag caacttagga gacaaaaggc 120
tttatttgac ttacattccc aggccattct ttttgtttgt ttgtttggtt ttttttgttg 180
ttgttgttgt ttttccagga tagtcagggc tacacagaga aaccctgtct tgaaaaacta 240
cccccccccc agaaaaaaga gatgcaaaac caaacaggaa aatgtacata cagcaggctc 300
gag 303

<210> 24
<211> 155
<212> DNA
<213> Mus musculus

<400> 24
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acacacacct tatgagcacc ccacttgctc tccactcctc ctcactcgct ctctcacctt 120
tctcttgccc cagtctttta ttgatactcc tcgag 155

<210> 25
<211> 401
<212> DNA
<213> Mus musculus

<400> 25
gaattcggcc ttcatggcct atccagtatt catgccttat ccagcacacc catggccctt 60
gcccattgaa gctggaagta acttttacca tgttcctttg agagcccccc gggctataag 120
ctcccacttt agatcacagc agaaggctga gtggttcttt ccattccccc atcagaatac 180
aagtgttcac agcagaggtc aaaactttgc tattaaatac ctccaaccct ggagatttta 240
ttcaagggaa agattcacaa gatgttcagc aactcctcag cagtatcacc cgaatggacc 300
atttgggaga tcacagagac aggcttctcc tgtacagacc catcctaaga gcaggcagat 360
gtccagaact cttgagaggt ctgggacagt ggtctctcga g 401

<210> 26
<211> 495
<212> DNA
<213> Mus musculus

<400> 26
gaattcggct tcatggccta cggactgttg cttcccagag gaattcacag acaccagact 60
tgcttgcaag tcatcatgac catgagacac tgctggacag caggccccag ttcttggtgg 120
gtcctgcttt tgtatgtcca tgtcattttg gccagagcca catctgcacc tcagacaact 180
gccactgtct taactggaag ctcaaaagac ccatgctctt cctggtctcc agcagtccca 240
agtaagcagt acccagcact ggatgtgata tggccagaaa aagaagtgcc actgaatgga 300
actctgacct tgtcctgtac tgcctgcagc cgcttcccct acttcagcat cctctactgg 360
ctgggcaatg gttccttcat tgagcacctc ccaggccggc tgaaggaggg ccacacaagt 420
cgcgagcaca ggaacacaag cacctggctg cacagggcct tggtgctgga acaactgagc 480
cccacccaac tcgag 495

<210> 27
<211> 321
<212> DNA
<213> Mus musculus

<400> 27
gaattcggcc ttcatggcct agattgaaat gcgcagtgtt tttgtttttt gttttgtttt 60
gttttgtttt gtttttccca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagtt 120
cctccgtcac aggttttgat ccagccattt gatgtaacta ttcctagtcc ggattcccac 180
ggagaagttg gtcggccagc ttgtaaaaat catacaacca tggaagccgt cctcaaagtg 240
gtccaaggtc acgttcacac ccgcactctc caagcgcttg gcgtacatga tcccatcgtc 300
ccgcaggacg tcgtgctcga g 321

<210> 28
<211> 343
<212> DNA
<213> Mus musculus

<400> 28
gaattcggcc ttcatggcct acaccacgct aagtgcaaaa aaattcctgt ggattctcct 60
cgtcctgctt tttgaacagt atgtcactaa aacagtgctg gtggctgctt atggagaaaa 120
ggatgctatt ttagaggcag atactgagtt ctggatttca gtctgttgtg aattcagtgt 180
ccagcatcag gtccagagct tgatgcatat cctccactac ctagaaaagc tgccagagga 240
aaaggaagaa gccacctcca agacagtatc tactaagagt gaagtacaag atgaaatgtt 300
gccagttttt aaggtggacg ctcacacaaa caagcagctc gag 343

<210> 29
<211> 504
<212> DNA
<213> Mus musculus

<400> 29
gaattcggct tcatagccta acctaaacag gctctcctct cagttatcaa ctgtggacac 60
ttgtgcgatc tctgatggct gtcctgcaag aaatctatga gtttttccct tatggggact 120
ttggccgcca gctgcctgct tctcattgcc ctgtgggccc aggaggcaaa tgcgctgccc 180
gtcaacaccc ggtgcaagct tgaggtgtcc aacttccagc agccatacat cgtcaaccgc 240
acctttatgc tggccaagga ggccagcctt gcagataaca acacagatgt ccggctcatc 300
ggggagaaac tgttccgagg agtcagtgct aaggatcact gctacctgat gaagcaggtg 360
ctcaacttca ccctggaaga cgttctgctc ccccagtcag acaggttcca gccctacatg 420
caggaggtgg tgcctttcct gaccaaactc agcaatcagc tcagctcctg tcagatcagc 480
ggtgacgacc agaacaaact cgag 504

<210> 30
<211> 428

<212> DNA
<213> Mus musculus

<400> 30
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tcaagtatct ggtcttcatt gtgctttgtc aatacctgga caatacgttt ttctcagaga 120
cagaagcaat tacaacagag cagcaatcac tgtctacttt aatcacaccg tcgttatatg 180
ttacaactga ttctcaaaac acagcaggga atgctttgag tcagacaaca agattcaaga 240
acatttcttc tggacagcaa gcatcacctg cccaaatcac tcctgaacaa gcaacaccag 300
ctgtttatgt ctcttcaagc ccacttactt ataacattac cagacaagca gaatcagcgg 360
tcaacaactc cttgcctcaa acatcaccat ctgggttcac tttgaccaat cagccatcac 420
ttctcgag 428

<210> 31
<211> 360
<212> DNA
<213> Mus musculus

<400> 31
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tttttggtgg ccctggcccc cttgccagat tccagctggc cgtcagtgct cgcgtgtctc 120
tctgaagagg ctctgcggtt ctggtccctg tgcctgagct ccaggtgccg ccagacatta 180
tacaacgtga aggctgagat ctttcccccct tcgggaatgg agtattgcag aacaggctcc 240
ctctgctccc tggaggtttt gatcacgagg ctctcagacc tcttggaggt ggataaagat 300
gaagcactga ctgaatctga tgagcatttt tcgacaaagc ttatgtatga agttgtcgag 360

<210> 32
<211> 343
<212> DNA
<213> Mus musculus

<400> 32
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aaactgggca aggttccccc tgctgtcatt attcccccag ctgctcctct gtcggggaga 180
agaaggagac ccactaaaag caaaggcagc aagtctagtc gcagcagctc attgggcaat 240
aaaagcccac agctttcagg caacctgtct ggtcagagtg gaacttcagt cttacacccc 300
caacagaccc tccatcccgc aggaaacacc cccgactctc gag 343

<210> 33
<211> 599
<212> DNA
<213> Mus musculus

<400> 33
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aatggaattc aagtatctgg tcttcattgt gcttggtcaa tacctggaca atacgttttt 120
ctcagagaca gaagcaatta caacagagca gcaatcactg tctactttaa tcacaccgtc 180
gttatatgtt acaactgatt ctcaaaacac agcagggaat gctttgagtc agacaacaag 240
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aacaccagct gtttatgtct cttcaagccc acttacttat aacattacca gacaagcaga 360
atcagcggtc aacaactcct tgcctcaaac atcaccatct gggttcactt tgaccaatca 420
gccatcacct tctacctata attctactgg acaaccacca aaacatcttg tctatacttc 480
cacacaacag ccaccatcac ctgctcctac ctcttctggg aaaaccagaa gtagagtcta 540
ctcataatca gcccacaaaa tcaacaccaa ctatttattt acaaagggac ggactcgag 599

<210> 34
<211> 363
<212> DNA
<213> Mus musculus

<400> 34
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ttttctacag cgatgaaaaa gagcgtgtta tccctttact tgtaaacatt atgcattatg 120
ttgtacccta cctccgaaat cacagtgcac ataatgcccc tagttaccga gcctgtgtcc 180
agctgctcag tagtcttagt gggtatcagt atacaaggag agcctggaaa aaagaagcct 240
ttgacctttt tatggatccc agcttctttc agatggatgc ttcctgtgtt agtcactgga 300
gagcaatcat ggacaacctg atgacacatg ataagacaac cttcagagat ttgatgactc 360
gag 363

<210> 35
<211> 139
<212> DNA
<213> Mus musculus

<400> 35
gatgcaccag ctcctgggcc tcaatctcct cttcctgcta tctcagaacc gagtggctga 60
gttccacaca gaattagaac gattacctgc caaggacatc cagaccaatg tctacatcaa 120
acaccctgtt tccctcgag 139

<210> 36
<211> 284
<212> DNA
<213> Mus musculus

<400> 36
gaattcggcc ttcatggcct aggccgctct atttctgttc caagtgtttg caggttttct 60
tggttttttt tcttatttct tcaaccagct gtttgatgtg gtcctccatg aattctattt 120
tctcattctt ccgggcatgg gctttctgta gcctcactat cctctcaatc agcatggctt 180
tgtccacttc tgggaagttg tccacagcca ccgaggagct ggtattctct ggagatcggt 240
cttcagcact gattcgagca ttaagtgacc ctgatgaact cgag 284

<210> 37
<211> 494
<212> DNA
<213> Mus musculus

<400> 37
gaattcggcc ttcatggcct aagtttattg aggtattaaa tttactttgc agtggatatt 60
tttaaatata cacctgagct gacgtgtttt taactgagtt tttttgtttt ttttttttaa 120
tgctactcat ttggattgct cttttaataa actcttcttg tataggaatg aaatcaccag 180
gagaacagct ggtgtgcctg ccaccagtgg aggcctttcc taatgatccc cgggtcatca 240
atagagaaag aagctgtgat taccagttcc caccccctcc gcctacagac accctaaaag 300
ggactaccga ggaggacact gtaacagcag gtcaggcgat ggcagtggaa gagcagtgtg 360
tgccagcagc agagcttcct agagtgagcg agattacaga aaatacagtg ttaggagagt 420
tccatctttt ctctaggaag gtagaagaga ttttgaagga gaagaatgtt tcatatgtta 480
gtgcaaatct cgag 494

<210> 38
<211> 317
<212> DNA
<213> Mus musculus

<400> 38
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ttttagaata tctctgttgg ctcaaatagc tatttctaaa ttttcgtctt aatcgtttaa 120
acttgtcagt tgtttttatt aaacttatgt tccatgtaca gtgctgccag gttcctgccc 180
aggagtcagt cagaggagca tggcttttcc ttctgggttc attagctttg ctgttagcca 240
acaccaacac tcatttcacg atggcttttg tccttgtcca agtgtccccc tgtgccccag 300
catcacaagc actcgag 317

<210> 39
<211> 362
<212> DNA
<213> Mus musculus

<400> 39
gaattcggcc ttcatggcct aaggaagtaa caattttgcc ttttctttgt gttctttaaa 60
ctgcttatta gaatttcata tctaatttgt ctctgatttt ggaaaagctt ataaacaaag 120
atttatcaga aaaaagtctc agaatttgtg aaaaaaaata gtaaaagaaa aggggataga 180
gacaaatgat tctcttttta ttaatttatt tattcacttt atatcctgat cgaagccctc 240
ctcctcccag tcccactccc cctagtccat ctctccagta ctcctctgct tctcagagaa 300
ggggaagtct cctaggggta ccagtatgcc cagcaggggg atccaaaggc agtatactcg 360
ag 362

<210> 40
<211> 318
<212> DNA
<213> Mus musculus

<400> 40
gaattcggcc ttcatggcct aaagaaacct ggataacatt gtcttgcaac agcctagtaa 60
taggtagcaa aaggaaatct aagaaagatg tttatacaat ctttgatgca gaggtggaga 120
gcacaagtcc aaagtcggaa caggattcgg gaattctgga tgtggaagac gaggaagatg 180
atgaagaggt acctggggct caagacttgg tggatttctc tcctgtgtat cggtgtctac 240
acatatattc tgtcctgggt gcccgtgaaa catttgagaa ttactaccga aaacagaggc 300
gaaaacaggc ccctcgag 318

<210> 41
<211> 556
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (151)..(152)

<400> 41
gaattcggcc aaagaggcct agaagaagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaactt tgtatattgt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaag nnaaggaacc attttgacag caagaccttc 180
tgtgaagttc taaaaaggga aaggatctgc gtgtgtctgg tcatttaaac acatattcag 240
ttctgtgtac tctagagttt gacggtctgt atatttttca ggcagccaag ccaagttatt 300
gtatcatttg ggtgtagaaa ctgtgttttc ctgtgtatat gtgatcaata tccaagggtc 360
taaaagttag cttgcttgta ttggaattta aaacaacaac aacaaaaaga aatatgtcac 420
tgtgttttca atttgtattt tcacaactgc ttccttttct atggctcctg ttcatatctc 480
acagtgtgta gggatcatag agaacacgca gagccgcaag ctgtctgtca catccagctt 540
ccgcagttca gtcgag 556

<210> 42
<211> 304
<212> DNA
<213> Mus musculus

<400> 42
gaattcggcc ttcatggcct aggttttctg ggctactacg atggcgatga gtttcgagtg 60
gccgtggcag taccgcttcc cgcccttctt tacgttacag ccgaacgtgg acacccggca 120
gaagcagctg gccgcctggt gctctctggt tctgtccttc tgccgcctgc acaaacagtc 180
cagcatgacg gtgatggaag cccaggagag cccgcttttc aacaacgtca agctacagcg 240
gaaacttcct gtggagtcaa ttcagattgt attagaagaa ctgagaaaga aagggaacct 300
cgag 304

<210> 43
<211> 323
<212> DNA
<213> Mus musculus

<400> 43
gaattcggcc ttcatggcct agtccttcct ctgcagacca tcgctgggcc ggctgccctc 60
ccctcctctc cctctctctt ggggttgggg cagtgggaag gaggggacct cccatgccca 120
aggatcccca gcgccagggg acagtgccca gggggcctgg ggtcccggag ggagtcctgg 180
gatctgaagg gcattcgatt gtgagcgccc aggcagaggc gcagaggcgg ctgtacacag 240
gctcagaaag gaaagacttg atgtcctcct gagggcagca gaggagcgcc gagccgcctg 300
tcacttcccc ctccacactc gag 323

<210> 44
<211> 322
<212> DNA
<213> Mus musculus

<400> 44
gaattcggcc ttcatggcct agattgaaat gcgcagtgtt tttgtttttt gttttgtttt 60
gttttgtttt gttttttcca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagtt 120
tcctccgtca caggttttga tccagccatt tgatgtaact attcctagtc cggattccca 180
cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
ggtccaaggt cacgttcaca cccgcactct ccaagcgctt ggcgtacatg atcccatcgt 300
cccgcaggac gtcgtgctcg ag 322

<210> 45
<211> 451
<212> DNA
<213> Mus musculus

<400> 45
gaattcggcc ttcatggcct acatgctctc actagctcct ctcctcagcc ttcttctcct 60
ctgtgtctct gattctaggg cagaaacaac tgtgacccag tctccagcat ccctgtccgt 120
ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
gaactggtac cagcagaagc caggggaacc tcctaagctc cttatttcag aaggcaatac 240
tcttcgtcct ggagtcccat cccgattctc cagcagtggc tatggcacag attttgtttt 300
tacaattgaa aacacgctct cagaagatgt tgcagattac tactgtttgc aaagtgataa 360
catgccgtac acgttcggag gggggaccaa gctggaaata aaacgggctg atgctgcacc 420
aactgtatcc atcttcccac caccactcga g 451

<210> 46
<211> 350
<212> DNA
<213> Mus musculus

<400> 46
gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
tcctgctgct ggcgctggtc gctgccagcc aggcggagcc cctgcacttc aaggactgcg 120
gctctaaggt gggagttata aaggaggtga atgtgagccc atgtcccacc gatccctgtc 180
agctgcacaa aggccagtcc tacagtgtca acatcacctt taccagcggc actcagtccc 240
agaacagcac ggccttggtc cacggcatcc tggaagggat ccgggtcccc ttccctattc 300
ctgagcctga cggttgtaag agtggaatca actgccccat caatgtcgag 350

<210> 47
<211> 449
<212> DNA
<213> Mus musculus

<400> 47

gcttcatggc ctacaaagac aaaatggatt ttcaagtgca gattttcagc ttcctgctaa 60
tcagtgcttc agtcataatg tccagaggac aaattgttct ctcccagtct ccagcaatcc 120
tgtctgcatc tccaggggag aaggtcacaa tgacttgcag ggccagctca agtgtaagtt 180
acatgcactg gtaccagcag aagccaggat cctcccccaa accctggatt tatgccacat 240
ccaacctggc ttctggagtc cctgctcgct tcagtggcag tgggtctggg acctcttact 300
ctctcacaat cagcagagtg gaggctgaag atgctgccac ttattactgc cagcagtgga 360
gtagtaaccc gtggacgttc ggtggaggca ccaagctgga aatcaaacgg gctgatgctg 420
caccaactgt atccatcttc ccactcgag 449

<210> 48
<211> 555
<212> DNA
<213> Mus musculus

<400> 48
gaattcaagt atctggtctt cattgtgctt tgtcaatacc tggacaatac gtttttctca 60
gagacagaag caattacaac agagcagcaa tcactgtcta ctttaatcac accgtcgtta 120
tatgttacaa ctgattctca aaacacagca gggaatgctt tgagtcagac aacaagattc 180
aagaacattt cttctggaca gcaagcatca cctgcccaaa tcactcctga acaagcaaca 240
ccagctgttt atgtctcttc aaccccactt acttataaca ttaccagaca agcagaatca 300
gcggtcaaca actccttgcc tcaaacatca ccatctgggt tcactttgac caatcagcca 360
tcaccttcta cctataattc tactggacaa ccaccaaaac atcttgtcta tacttccaca 420
caacagccac catcacctgc tcctacctct tctggaaaac cagaagtaga gtctactcat 480
aatcagccca caaaatcaac accaactatt tatttacaaa gggacacacc accaccacca 540
ccaccccaac tcgag 555

<210> 49
<211> 328
<212> DNA
<213> Mus musculus

<400> 49
gaattcggcc ttcatggcct acatgctctc actagctcct ctcctcagcc ttcttctcct 60
ctgtgtctct gattctaggg cagaaacaac tgtgacccag tctccagcat ccctgtccgt 120
ggctacagga gaaaaagtca ctatcagatg cataaccagc actgatattg atgatgatat 180
gaactggtac cagcagaagc caggggaacc tcctaagctc cttatttcag aaggcaatac 240
tcttcgtcct ggagtcccat cccgattctc cagcagtggc tatggcacag atttgtttt 300
tacaattgaa aacacgctct ctctcgag 328

<210> 50
<211> 304
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (143)

<400> 50
gactctaaag atgaaatgta aattcctggg tagcttcttt ctgctcttca gcctttccgg 60
caaaggggcg gactgcagag acaatgagac catctggggt gtcttgggtc atggcatcac 120
cctgaacatc cccaactttc aantgactga tgatattgat gaggtgcgat gggtaaggag 180
gggcaccctg gtcgcagagt ttaaaaggaa gaagccacct tttttgatat cagaaacgta 240
tgaggtctta gcaaacggat ccctgaagat aaagaagccg atgatgagaa acgacatcct 300
cgag 304

<210> 51
<211> 436
<212> DNA
<213> Mus musculus

<400> 51
gaattcggcc ttcatgccta aaaataattg gtccctgcct gagctagtgc acgccgtggt 60
cctcttggct cactatcacg ctttggccag ctttgttttt ggtagtggca tcaatccaga 120
gagagaccca ggaatcgcca atgggttcag actaatctct gtgagcagct tctgtgtgtg 180
tgacctggcc aatgacaaca gcatcgagaa cacctccctg gcgggcagca actttgggat 240
tgtggattcc ctaggcgagc tggaagcctt aatggaaagg atgaaaaggc ttcaggaaga 300
cagggaagat gacgagacca ctcgggaaga aatgaccacg cgttttgaga aggaaaagaa 360
agaaagtctc tttgtggtcc ctggagaaac tttacatgcg tttcctcact cagattttga 420
agatgatgtt ctcgag 436

<210> 52
<211> 285
<212> DNA
<213> Mus musculus

<400> 52
gaattcggcc ttcatggcct acggctagga agggcataga tttttagaga tgggctagtt 60
gggttccgaa cctggctgca taattttatc ggggtggaat ttaggcggat cgcattttta 120
atgcctgaaa atgggcacag cagtgctgtg taacattgaa tctgagatgt cacctaggga 180
aagacacatt ccgatttgaa agatagtcga taggaaagaa aacaagccat ggtcatgggc 240
aagtgcctcc cccgaagagt tatgttaaag atgaaatggc tcgag 285

<210> 53
<211> 448
<212> DNA
<213> Mus musculus

<400> 53
gaattcggcc ttcatgccta gggagacacg gaagagacaa attttgatct ttttaaatat 60
gctcttagtt tctagagtct ttgggtttcg atggtttcct aaaactctac cttgtgaagt 120
taaagtaaat atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cctgttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agctttagtg gactctctga cttaaaagcc ctttacctgg atggaaacca 420
acttctggag ataccacagg gactcgag 448

<210> 54
<211> 449
<212> DNA
<213> Mus musculus

<400> 54
gaattcggcc ttcatgccta gggagacacg gaagagacaa attttgatct ttttaaatat 60
gctcttagtt tctagagtct ttgggtttcg atggtttcct aaaactctac cttgtgaagt 120
taaagtaaat atcccagagg cccatgtgat cgtggactgc acagacaagc atttgacaga 180
aatccctgag ggcattccca ctaacaccac caatcttacc cttaccatca accacatacc 240
aagcatctct ccagattcct tccgtaggct gaaccatctg gaagaaatcg atttaagatg 300
caattgtgta cctgttctac tggggtccaa agccaatgtg tgtaccaaga ggctgcagat 360
tagacctgga agctttaagt ggactctctg acttaaaagc cctttacctg gatggaaacc 420
aacttctgga gataccacag ggactcgag 449

<210> 55
<211> 476
<212> DNA
<213> Mus musculus

<400> 55
gaattcggcc ttcatggcct agccggggcc ttcatgagac tctccagctg aagccatctc 60
ctgcttggga gccagtgctc cattttctgt cgtggcatca tcatcacagt gcctcagaga 120

gtggagttcc caggatgccc acttgagctg gttctctaca gcatccagct cagaactcgg 180
taatccctga gcatcttctt gagatgttat ctcttctaca agcacttccc gtttctgccg 240
acggagagaa accggctgac cagggtcatc aagctcactc tccaagtcct ctagaacagc 300
cactgcctcc tctccattct ctgggtgatg ctctcgaacc caagtctgta gctccttggg 360
taggatggca acaaactgct ccaaaactac cagctccagt atctgctcct ttgtgtgtgt 420
ctctggtctg agccacaggc ggcaaagttc tcggagctgg ctcaccgcct ctcgag 476

<210> 56
<211> 393
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (57)..(58)

<220>
<221> unsure
<222> (226)

<400> 56
gaattcggcc ttcatggcct atgcagattt aatggaacta gggaaatcct tatccanntc 60
caaaacctca ttaacttctc taagggaggc tcacccttcg aaatcagcgg gaacaagact 120
tccaatctct gcaacaggat ggactgtgta aacctctgga gaaaaggtgc tgcacctttg 180
tggataactt aaagcatgcg agggagttat tgcctaaggt gaggcnacgt ctagaagaca 240
ggccaaaggg aaatgggaca gggtcagcct gtgtggatta cagttattgc aactctgtct 300
ggattcttgg gcctggtcat actcattgtg atatgcaagc tctatgttgt taaccccctg 360
atggattcat caaggaccag gtcaccactc gag 393

<210> 57
<211> 484
<212> DNA
<213> Mus musculus

<400> 57
gaattcggcc ttcatggcct ataggccatg aaggccggcc ttcatggcct aagtctctcc 60
ccctttactc cctcccacct ttttccagac ctgccctcct cttagaaaag aacagtcctc 120
cctcctgggc acatgaatgg aatatgctat aacaagctat agtaagacca ggcacacatt 180
ctcacatcaa ggctagacca ggaggcaaag cattccaaag gcaccagatg actcagggac 240
agcctgtgct cccactgtta gcaccctaca agaacaccaa gctatacaac cgtaacatac 300
atgcagtgct cagacacata taggctcacc atcacaagaa catggcccac agaatcatct 360
gaggcacatt ttacctaaca gttggtacag atgacttggg cagtgtcttt tggtagatat 420
tgaagacaca aagatgcatg ctcctctccc acccttaccg attgaattct agacctgcct 480
cgag 484

<210> 58
<211> 554
<212> DNA
<213> Mus musculus

<400> 58
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atgcatcagc attgaccgct acgtagccat cgtccaggcc gtgtcggctc atcgccaccg 120
cgcccgcgtg cttctcatca gcaagctgtc ctgtgtgggc atctggatgc tggccctctt 180
cctctccatc ccggagctgc tctacagcgg cctccagaag aacagcggcg aggacacgct 240
gagatgctca ctggtcagtg cccaagtgga ggccttgatc accatccaag tggcccagat 300
ggtttttggg ttcctagtgc ctatgctggc tatgagttct gctactcatt atcatccgta 360
ccttgctcca ggcacgcaac tttgagcgga acaaggccat caaggtgatc attgccgtgg 420
tggtagtctt catagtcttc cagctgccct acaatggggt ggtcctggct cagacggtgg 480
ccaacttcaa catcaccaat agcagctgcg aaaccagcaa gcagctcaac attgcctatg 540

acgtacacct cgag 554

<210> 59
<211> 322
<212> DNA
<213> Mus musculus

<400> 59
gaattcggcc ttcatggcct agattgaaat gcgcagtgtt tttgtttttt gttttgtttt 60
gttttgtttt gttttttcca aagcaaacgg aggtcaagag cttcatgcgt ctgaggagtt 120
tcctccgtca caggttttga tccagccatt tgatgtaact attcctagtc cggattccca 180
cggagaagtt ggtcggccag cttgtaaaaa tcatacaacc atggaagccg tcctcaaagt 240
ggtccaaggt cacgttcaca cccgcactct ccaagcgctt ggcgtacatg atcccatcgt 300
cccgcaggac gtcgtgctcg ag 322

<210> 60
<211> 390
<212> DNA
<213> Mus musculus

<400> 60
gaattcggcc ttcatggcct agctgtagat gtttcttcta gagcacctat ttttctgtcc 60
tcccctcata cctttttttaa aactttaaaa aagtgcatgg gtgtttgcct gcatgaatgt 120
ctgtgctcca tttgcatgat tggtgtcctt ggaaggcgga agaaggtgtc agacctcctg 180
gaattgaaat tgtagacagt tgtgatctgc catgtgggtg ctgggaatca aacctgggtc 240
ctatgaaagg tatccagtgt tcttattctt aactgctgaa ctatatcttc agccgtcatc 300
ccacactgtt ttagtgagat gatggtaata ggaagatttg ttgctctgtt ttgttttgtt 360
ttgttttgtt ttcctagtgc gggactcgag 390

<210> 61
<211> 483
<212> DNA
<213> Mus musculus

<400> 61
gaattcggct tcatggccta catgctgatg ctcatgctcc tgatgatgtt cgcggtccac 60
tgcacgtggg tcacaagcaa cgcctactcc agtccaagtg tggtccttgc ctcctacaat 120
catgatggta ccaggaatat attagatgat tttagagaag cgtacttttg gctgagacaa 180
aacacggatg aacacgcccg ggtcatgtcg tggtgggact acggctatca gattgctggc 240
atggccaaca ggaccactct ggtggataac aacacctgga acaacagcca catcgcactg 300
gtcggaaaag ctatgtcttc caatgaaacg gccgcctata aaatcatgag gtcccttgat 360
gtcgattatg tgttggttat tttcggagga gtgattggct attccgggga cgatatcaac 420
aagttcctct ggatggtcag gatagctgaa ggggagcatc ccaaagacat ccggcagctc 480
gag 483

<210> 62
<211> 189
<212> DNA
<213> Mus musculus

<400> 62
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aaccctggtc acttaatcaa tgccaccctt ttcttagtgt attcatttat tttcccacgc 120
gtgatgggat tctataccct gcaaaccaat cctaagagaa gcttggcaag ggatgaggaa 180
aaactcgag 189

<210> 63
<211> 456
<212> DNA
<213> Mus musculus

<400> 63
gaattcggcc ttcatggcct aagcttcgga ataataattt tggcaaatct atcttctgaa 60
ccactcattt ctgtggtctt aatggctcca atttggggac caataatgtt cattgtctca 120
ggatccctgt caattgcagc aggagtgaaa cctacaaaaa gcctgatcat cagcagtcta 180
actctgaaca ctatcacctc tgtgttggct gcaactgcaa gcataatggg tgtagtcagt 240
gtggctgtgg gttcacagtt tccgtttcgg tataattata caatcaccaa gggtttggat 300
attttgatgt taattttaaa tatgctagaa ttctgcattg ctgtgtccat ctctgctttt 360
ggatgtaaag cttcctgttg taactccagc gaggttcttg tagtgctacc atcaaatcct 420
gctgtgactg tgatggcacc ccctgtgtca ctcgag 456

<210> 64
<211> 330
<212> DNA
<213> Mus musculus

<400> 64
gaattcgcct tcatggccta cctgcttaga cacgcttgtg ctgaaggcct tgcccttgct 60
cacccagtag gttttcagga tcacttccgt cagcagcttc ctcttcctga gctcattccg 120
ttcctttttca gccagcttct cagcctggcc tgcctggacc agctgcaacc gcttctgcac 180
ttcatcctct atactgtcca ccactcggaa cacccggggc ccgtcggcgg cactcttgtc 240
cactcggatc cacttgttgg acatggcctt gctgaagccc accttgccgc tgggcaggtg 300
catgagctca ctctgcacca ggccctcgag 330

<210> 65
<211> 358
<212> DNA
<213> Mus musculus

<400> 65
gaattcggcc ttcatggcct acaagaagga cgagcccaag agcagcgagg aggcgctcat 60
cgtccctccg gatgccgtgg cggtggattg caaggacccg ggtgacgtgg ttccggttgg 120
acagaggaga gcgtggtgtt ggtgcatgtg tttcggactg gccttcatgc ttgctggcgt 180
catcctcgga ggggcgtacc tgtacaagta ttttgctctt cagccagatg atgtgtacta 240
ctgtggacta aagtacatca aagatgacgt catcctgaac gagccttctg cggatgcccc 300
agctgctcgc taccagacaa ttgaagagaa cattaagatc tttgagcaag aactcgag 358

<210> 66
<211> 451
<212> DNA
<213> Mus musculus

<400> 66
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cgctgcgcag aagaacaagg tgaagcgctc cgccatcgcg gtcgtcacca tcttcctggt 120
ctgctttgct ccctaccacg tggtactcct cgtcaaagct gccagctttt ccttctacca 180
aggagacatg gatgccgtgt gtgcctttga aagcagactg tacacagtct ctatggtgtt 240
tctgtgcctg tctacagtca acagtgtggc tgaccccatc atctacgtgc tgggtacaga 300
ccactctcgg caagaagtgt ccagaatcca cacagggtgg aaaaagtggt ccacaaagac 360
atatgttaca tgctcaaagg actctgagga gacacacttg cccacagagc tttcaaacac 420
atacaccttc cccaatccca cgcatctcga g 451

<210> 67
<211> 349
<212> DNA
<213> Mus musculus

<400> 67
gaattcggcc ttcatggcct acacaatgtc gggctcctcc cgccgactgc tctgggccgc 60
cacctgcctc gccgtgctct gcgtctcggc cgcgcagccc aacatcacca ccctggctcc 120
caacgtgacc gaggtgccga ccacgaccac caaagtggtc ccgacgacgc aaatgcccac 180

cgtgctacca gaaacctgtg cgagcttcaa cagctgtgtt tcctgtgtta atgccacctt 240
tactaataat attacctgct tttggttaca ttgccaagaa gcaaataaga cctattgtgc 300
aaatgaacca ttaagtaatt gttcccaggt gaaccgcact actctcgag 349

<210> 68
<211> 304
<212> DNA
<213> Mus musculus

<400> 68
gaattcggcc ttcatggcct agtttgacct ggctggaata acgtgtgggc acttccttga 60
acctttctgg accttctttg gtgcaaccct gattgggaaa gcaatcatta aaatgcatat 120
ccagaaaata tttgttatag taactttcag caagcacatc gtggagcaga tggtgacttt 180
cattggtgct gtccccggca taggtccgtc tctgcagaag ccttttcaag agtacctgga 240
ggcgcagcgg cagaagcttc atcacagaag tgaagcgggc acaccgcagg gagaaactct 300
cgag 304

<210> 69
<211> 646
<212> DNA
<213> Mus musculus

<400> 69
gaattcggcc ttcatggcct agctagttta taggtgttta ttaaagatgc agattttaat 60
tagttaccca gtttgaccct aatcatacat atagtttatt gattcagttt gtgatttttg 120
ttttatgttc ttatgatggc ttataataga ttttttgaga tcagttttaa ttcctccttt 180
tgaaataact gggtatttaa atttaaagtt ttctttttaa aataattatg tgcagtgtct 240
cactattgat gtagctggac aaagctggct atgagtgcga cgggaaacac agtagtgtcc 300
tgaagtgcct ggctgccctg cgtactgtat tttagaattc agacattgtc catgatcaga 360
agtccctgaa gacggcactt cccagtaatc actccagagt gctcagtggg tgtcccctgc 420
gcgtctacac tcctggcttc ttgagtagaa ggcacaaacc tttattccct ttctagctct 480
ggctcttgga acctcatgaa gagttgacac cttttgcgtt gctccgttgc cagcccccat 540
cgttcctact gtcttgctgt gcctagagca gtggcaggcc aggcgtccag gctgcttcca 600
cccactgcag gcaccctaga gagggagctg ggagaagcag ctcgag 646

<210> 70
<211> 304
<212> DNA
<213> Mus musculus

<400> 70
gaattcggcc ttcatggcct acaaaacctt tccccaagag cccatgtata gacccagatt 60
tgctatgcaa atagtccaga ttcagttatg gctggctaca ttattcagta acttcccaac 120
aggtagcaca aatattcctt atggaaaaag cccaggactg ttcagtagtt cctcctgtac 180
ttttctgctg gctacagtat ggagtgcccc atgggcacag gcccagccgg agaacagaac 240
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cgag 304

<210> 71
<211> 474
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (20)

<400> 71
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gtgtggggac attatgatgt atgtaagagc ctgatttaca cagaagaagg caaagtttgg 180
gattacacag cctgccagcc ggaatccacg gacatgacca agtatctgaa agtgaaactg 240
gaccctccgg atattacctg tggagaccct ccagagtcct tctgtgcaat gggcaaccct 300
tacatgtgca ataatgagtg tgatgcgagt acccctgaac tggcacaccc tcctgagctg 360
atgtttgatt ttgaaggaag acatccctcc acattttggc agtctgctac ttggaaggag 420
taccccaaac ctctccaggt taacatcact ctgtcttgga gcaaaaccct cgag 474

<210> 72
<211> 536
<212> DNA
<213> Mus musculus

<400> 72
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cacataatgc tatctgtgat ggtttatata tgcttggctc agggagtggc actgttatga 180
ggtgtaacct ctttcaacaa ggtgataaag atgaaatggg gtattactgt gctcactgga 240
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tcctctgcaa aggctgtgcc cagttttgtt atcgggctat tggtttaagg tccacacctc 360
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cagagaagtt gagagaccac agagagtgtc tggtagctga ctgagtatac tggacatctg 480
tgtcaaaatg caaaaacaat gaagatgagc cacctggagc cagggagcat ctcgag 536

<210> 73
<211> 384
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (31)

<220>
<221> unsure
<222> (100)

<220>
<221> unsure
<222> (103)

<220>
<221> unsure
<222> (138)

<400> 73
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caagttaacc tggaattntt tttttgtaca tttgaggcca cagggaatac attgtttcaa 180
taccaaagtg tttggttcat ttttgagaag ctggaagctt gctctcatgc tcaccactag 240
ctttatcccc agcaaacttc ctctccagac aggcagccgc attctcagca tggggaaccg 300
gtgggggtgc acggggtgcg tatgctgttt ctataaagac tgcacacacg caatcgtgtg 360
tggcattttt ttggtaaact cgag 384

<210> 74
<211> 422
<212> DNA
<213> Mus musculus

<400> 74
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ggatgatatc tgccctacct gcatttagcc aggtagttta acctaagaga agaccttgtg 120
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tgtaacctag gccttcagaa gttagaactg cagttgacgg acggaagctt gagggttttc 240
tgagatggac tacatttctt catttccatg tctaatgttg gttctctaag atgtcctctg 300
ctttcaaata ttggctccta tattgagtgg tagtctcagg aggtagaggc aggaggatct 360
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ag 422

<210> 75
<211> 388
<212> DNA
<213> Mus musculus

<400> 75
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tggggctcag acctaggaca gcatgtattc taggcaagca ttcaaccact gagctaaatc 180
tcctgccatc cttctaataa cagggaggaa gggagaaata gtccaggaaa ccgggtatct 240
atcacgtggt tggcttactt caacgcttag aagtttggag tgtaggattc agtagttatt 300
ttctaggttg ggtgactgag gtccagaagg cttaaatgac cagggttaca caggcaggaa 360
gaggcacaca aatacactgg cactcgag 388

<210> 76
<211> 525
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (493)

<400> 76
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gaagattgta aaggtcctcc tccaagagaa aattcagaaa ttctctcagg ctcgtggtca 180
gaacaactat atccagaagg cacccaggtt acctacaaat gccgccctgg ataccgaaca 240
cttggcacta ttgtaaaagt atgcaagaat ggaaaatggg tggcgtctaa cccatccagg 300
atatgtcgga aaaagccttg tgggcatccc ggagacacac cctttgggtc ctttaggctg 360
gcagttggat ctcaatttga gtttggtgca aaggttgttt atacctgtga tgatgggtat 420
caactattag gtgaaattga ttaccgtgaa tgtggtgcag atgggtggat caatgatatt 480
ccactatgtg aanttgtgaa gtgtctacct gtgacagaac tcgag 525

<210> 77
<211> 263
<212> DNA
<213> Mus musculus

<400> 77
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acattaatcg tctgtatact ccatactatt aatcttttag ctctatttat ttttccaaag 120
tcagactgtc ttgatagcaa tatagtgagt tttaaagtca gctagtacaa gaattctaga 180
tgtattctcc ttcttttgta ttatattggc tatttttggt actcctgtct gcttccttca 240
ttgtatctcc aacacatctc gag 263

<210> 78
<211> 437
<212> DNA
<213> Mus musculus

<400> 78

gaattcggcc aaagaggcct agaaagatgt atcatggaat gaacccgagc aatggagatg 60
gatttctaga gcagcagctg cagcaacagc agcctcagtc cccccagaga ctcttggccg 120
tgatcctgtg gtttcaactg gcgctgtgct ttggccctgc acagctcacg ggtgggttcg 180
atgacctcaa cgtgtgtgct gacccaggcg tcccagagaa tggcttcagg acccccagcg 240
gaggagtttt cttcgaaagc tcagtaaccc gatttcactg ccaagacgga ttcaggctga 300
agggctctac aaagaggctg tgtatgaaac attttaatgg gaccctaggc tgggtcccaa 360
gtgacaaacc tgtctgcata caagaagact gccgcatccc ccaaattgaa gatgctgaga 420
ttcgaaacaa cctcgag 437

<210> 79
<211> 456
<212> DNA
<213> Mus musculus

<400> 79
gggggtcgtt atcattgctt ggctgttatt attaccgttg ttattttatt tttatttttt 60
aaacctaagg gagaaagaca catacacaca aaactgtggg atttatttaa catgatcttg 120
gcaaacgcct tctgcctctt cttcttttta gacgaaaccc tccgctcttt ggccagccct 180
tcctctccgc agggctctga gctccacggc tggcgccccc aagtggactg tgtccgggcc 240
aatgagctgt gtgcggctga atccaactgc agctccaggt accgcaccct tcggcagtgc 300
ctggcaggcc gggatcgcaa taccatgctg gccaataagg agtgccaggc ggccctggag 360
gtcttgcagg aaagcccatt gtatgactgc cgctgcaagc ggggcatgaa gaaggagctg 420
cagtgtctgc agatctattg gagcatctac ctcgag 456

<210> 80
<211> 574
<212> DNA
<213> Mus musculus

<400> 80
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cagtccatcc tttccagctg gaaagccaag ccttctcacc tctcccagtc tggtcccctc 180
agcacagtct agcgctttct ctcacggagc acctaccagc tctctggaac tccagtctgg 240
aagtcgtttg gatttcacat ccggctttta ctccactccg cccctggact tcagcactcc 300
agccccttca cggtcagacg agcttgcttt cccatctttg atgtcaagcg atccatcaac 360
cttcttttct caaacttttt ccaccatggc tgagacattt tcactgtcca actctatgaa 420
tttgcaatca cctcagcttt ctgttcttaa tcccacaagt ctagagccgt ctcagccaca 480
gtcaagtgca gaccttcttt tgaacacagt cactgttctt cctagtcccc ccgagaggcc 540
cccactttca agctcccccт ctgactctct cgag 574

<210> 81
<211> 384
<212> DNA
<213> Mus musculus

<400> 81
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cagccagtag ctggatcctt gaggtcacgt tgcatatcgg tttcaaggta accatggtgc 120
caaggtcctg tgggttgcac cagaaaaggc catcaatttt cccccttgcct gtaatttaac 180
attaaaacca tagctaagat gttttataca tagcacctat gcagagtaaa caaaccagta 240
tgggtatagt atgtttgata ccagtgctgg gtgggaatgt aggaagtcgg atgaaaagca 300
agcctttgta ggaagttgtt ggggtgggat tgcaaaaatt ctctgctaag actttttcag 360
gtggacataa cagacatact cgag 384

<210> 82
<211> 535
<212> DNA
<213> Mus musculus

<400> 82
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ggcgctggct gtcctgagct tctgctatgg tgctggaagg tcagttccta tgctgagaca 180
cttcggtggt cctgacagag aacctccccg agcacttgag ccagatgaca gaagacgaca 240
gaagggactt gactatagac tccatggtgg agcaggtgat ccagatttct cttacagggg 300
cccagctggc tccatcgagc aaggccctta tgacaaaatg catgcgagta agagagatgc 360
tttgagacag agatttcact ctggcaacaa gagccctgaa gtgctccggg catttgactt 420
acctgacaca gaggcacaag aacatccaga agtggtcccc agccataaat cacccattat 480
gaacacaaac cttgagactg gtgaactccc aggagaaagc accccggaac tcgag 535

<210> 83
<211> 430
<212> DNA
<213> Mus musculus

<400> 83
gaattcggcc aaagaggcct aaatcataaa tatctgtatg ctattgaaat ttaactttgt 60
atgatgctta aaccactatt tggggaaata ataaaataag tctttaccat gtatgaaaga 120
aattttaaaa aatacaaaat attttctgat tagcatctag cttataataa attttcaaaa 180
aagctgaagg caactgtggc cttcatcagg atgcactgag aactatatag ttacgtcctg 240
cgttttgtat aaactgagat gctcatgtgc ttccccttag aacaggcaat gtgctatgca 300
taacatagtt gtacattatc tttgcagttg ctttgagttt tattttttat tatttaaaac 360
tgtagttata aaaattttca gtatagtaca gtacatatac tgtgaggcgc gattctagac 420
ctgcctcgag 430

<210> 84
<211> 528
<212> DNA
<213> Mus musculus

<400> 84
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tgctaggtag aaaacactac aaaagcagat gtgtggaatc ttttcctttt cctagacttt 120
gtatttattt aaaggcaaac aaaacctaga gtatcccgct atttttagtc tagatctgta 180
gcaactataa tctgaaagag aaacttgttt aaaaaaaaaa caaacactgt gaaccccaac 240
aggcctggag gatcaagaat cagagacata gttgattttt taggctttgg cctgcagcgc 300
ttctcattgt tagcctcagt ttcccccaaa ggtcagacaa gtactagcaa tttcccagac 360
aacctcactg atttagtca accaaggagc aagtacttgc tctagaatca atgttggtaa 420
tggtcaacag ctcatcggcc gtgctgcgca tcttaacgta gagccagtgt gagttcaggg 480
ccagcactgt cttcccagca gacctttctg attgcgcgca gtctcgag 528

<210> 85
<211> 144
<212> DNA
<213> Mus musculus

<400> 85
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acttaaaata cttctatgat ttttttttct cttctagttt tccctgtgat gtgtgccagt 120
gtgaattgta tgggtgtact cgag 144

<210> 86
<211> 379
<212> DNA
<213> Mus musculus

<400> 86
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gctgaaactg tacgcgatgt ttctgacact cattttttttg gtcgaactag ttgccgccat 120

tgttggattt gttttcagac atgagattaa gaacagcttt aaaagtaact atgaaaacgc 180
tctgaaggag tacaactcca caggagacta tagaagtgaa gctgtagaca agatccaaag 240
tacgttgcat tgttgcggtg tcaccaatta cggagattgg aaaggtacga actattactc 300
agaaacagga tttcccaaga gctgctgtaa actggagggc tgttatccac agagagatgc 360
agataaagtg caactcgag 379

<210> 87
<211> 441
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (60)..(61)

<220>
<221> unsure
<222> (136)

<220>
<221> unsure
<222> (151)

<400> 87
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aaataaatga tacacnaaga aaactgattt naattctgga caagaacctg tgaatgtttt 180
cttttgaagg aatgtggaag acataaggac tgagatggca aaggcataga aacctgtaca 240
cagatcttca tctactgttc ttgtaggacc tggtaggtac cactgtttag actattatgg 300
gcagagtaag gtgaggtcat aggatttcaa ggggaaatag tgatatgaaa aaatttagct 360
agaggtcatg tgtgatagtt tggccacaaa tgtttttcat tctatccatg acctctgaaa 420
ttgaggaagc aggatctcga g 441

<210> 88
<211> 372
<212> DNA
<213> Mus musculus

<400> 88
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actttgccat gatcgtgtct tctgcgctca tgatctggaa aggcctgatt gttctcacgg 120
gcagcgagag tcccatcgtg gaggtactca gtggcagtat ggagccggcc ttccacagag 180
gagatctgct gttcctcacg aatttccggg aggaccccat cagagctggt gaaatagttg 240
tttttaaggt tgaaggaaga gacattccga tagttcacag agtaatcaag gtttcatgaa 300
aaagataatg gtgacatcaa gtttctgact aaaggagata ataatgaagt cgatgataga 360
ggcagcctcg ag 372

<210> 89
<211> 436
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (354)

<400> 89
ctcgaggatg tccttcttgc cttcttcctc ctcatcagcc ttctcatgct ccagagactc 60
gatgcgagat gcatttttct ctggctcaat aatcaacgtt tccttgtttt taaaagcctt 120
ctgtggttga ttgttttcca tatttgctgt ggactcgatc agtggagatt tcttatcccg 180

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cttctcacta tggagcagag tttgtttttt ttgcaactct tctagatatc ccaaaatgtc 240
ttcatctgct acatcaaagg ctgtttggcc cactttgttg accgtctcca tatcacacag 300
attgtccact aaaatccgac atgcttcctt taccccaatg agctgcagca tgangaggtg 360
tccagccatc ataatcttta atattaacat catagcctgc ctgtattaaa agttttaggg 420
ctctttgggc gaattc                                                  436

<210> 90
<211> 373
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (12)

<400> 90
gaattcggcc anagaggcct actttctgaa gacaaaagct aagatgaagg acacgccact 60
ccaagtccat gtgctacttg gcctagctat cactacacta gtacaagcta tagataaaaa 120
agtggattgc cccaattat gtacctgtga gatcaggcct tggtttaccc cgagatccat 180
ctatatggaa gcatcgacag tggactgtaa tgatttaggg cttttaaact tcccagccag 240
attgcctgcc gacacacaga ttctgctcct acagactaac aatattgcaa gaattgaaca 300
ttccacagac ttcccagtga acctgactgg cctggactta tctcaaaaca atttatcaac 360
agtcacactc gag                                                     373

<210> 91
<211> 306
<212> DNA
<213> Mus musculus

<400> 91
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aaccttactt aacagtgtat aatgtttata aaggaagttt gtaataggaa cttggcaggt 120
ttgattggta ggtaccatac tgagggcagc cttctatagc acatctctcc aatgtgattt 180
gtggacattc aaagcctgct tggttccctg caggaccaca catgctgctg cactcactcc 240
tggactgtag aagtaaatac cttaatgctt tatcatttga cattctaacc aaggaaaaag 300
gtcgag                                                             306

<210> 92
<211> 344
<212> DNA
<213> Mus musculus

<400> 92
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ggtttgactg tattactcgt accagattta aaattagact agccttgcca caacgcccta 120
ctgagaggta ctgtcgaact gtagacagca tgatgttctt tgatggtgaa agtctaaatc 180
tggaccgtgt tcagagatac caaatgatga ggctgaaaag gggaaagggg gttcttcagt 240
ctcttcttct tcttcttttt attttttttt ccatgatgtt ttctctatgg ccagtgcaaa 300
tggtgttgtc acccttgcat gttgccaacc gcaggcatct cgag                    344

<210> 93
<211> 530
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (30)

<220>
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<221> unsure
<222> (69)

<220>
<221> unsure
<222> (105)

<400> 93
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cctaggggag agagaaagag aagagcagag ccctgaggaa ggtgacaact tacgcgtccc 240
tgtatgtggg gaaccatacc ctgagcatag aggactacaa cgaggtcatt gatctcagca 300
actatgaaga actggcagac tatggagacc agatccctga ggctaaaata agcaatctga 360
ctcttccaac aagaactagt cccactagca ctgtggctca gaagacattg tcaccaaacc 420
tcacgatggc cgtacctacc accactggcc tactaaactc ccagagcagt catgcaaaac 480
tgagaaggat cgacctctct ggcaactcca tctcctccat ccacctcgag 530

<210> 94
<211> 644
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (191)

<400> 94
gaattcggcc aaagaggcct atggacctgc gtcagtttct tatgtgcctg tccctgtgca 60
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tcagcgataa agttcacaat gatgctcaga attttgacta tgaccatgat gccttcttgg 180
gtgcagaaga ngcaaagagt tttgatcagc tgacaccaga agagaccaag gaaaggcttg 240
gaaagattgt aagtaaaata gatgacgaca aggatgggtt tgtcactgtg gatgaactca 300
aaggctggat taagtttgca caaaagcgct ggattcacga ggatgtagag cggcaatgga 360
aggggcacga cctcaatgag gatggcctcg tttcctggga ggagaataaa aatgccacct 420
acggctacgt tttagatgat ccagatcctg atgatggatt taattataaa cagatgatgg 480
tcagagatga gcggaggttt aaaatggcag acaaggatgg agacctaatt gccacaaagg 540
aagagttcac agctttcctg caccctgagg aatatgacta catgaaagac atagtcgtgc 600
aggaaaccat ggaggatata gacaagaatg ctgatgggct cgag 644

<210> 95
<211> 413
<212> DNA
<213> Mus musculus

<400> 95
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acatgcagga gccaaacggg cggctacttc agcagttacg ggaaaaggat gacgccaacc 120
ttcaagctca tgtcggagcg gatcaaggcc aaccagattc acaagctgct ccgagaggag 180
aaggatgagt tgggcgagca ggttcttggc cttaagtccc aggtggatgc ccagctgctg 240
accgtacaga agcttgagga gaaggagcgg gctctgcagg gcagcctcgg gggtgtggaa 300
aaggagttga ctctgcgcag ccaggctctg gagcttaata agagaaaggc tgtagaagca 360
gcccagttgg ctgaggacct gaaggtgcag ttggagcatg tacagagctc gag 413

<210> 96
<211> 488
<212> DNA
<213> Mus musculus

<400> 96

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ctggatgatc acccatctga aaaggacagg ctgctcctcc tcaggggagc cctggaagct 180
tatgttcagt cagtgagaag cagggacggt aaagaatttg caccagttta tcccattatg 240
gttcagctgc ttcaaaaggc tatgtctgct cttcagtgac ttgcagtctc catgaacaga 300
cccgtccaaa gaaagcagtg ccaaatggtg gatggccagg aattgcacca gcccagatca 360
tcatcatctg acagggagga catacagaaa atgcctgact ctgactcact gtttgcctgt 420
acagagaaaa cagaaacttc tgttttgttà tttttaaaag atcttttaat acctctttta 480
aactcgag 488

<210> 97
<211> 597
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (144)

<220>
<221> unsure
<222> (280)

<400> 97
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cagggccaga tgtggtcttc agattgggct gaggagcttc ggaaagctga ccagcagaag 120
gagcagacct atcgggataa ggcnttaatg cctgtattac agcacctgaa cccagtatgg 180
gtgttacagc aggtggagga aactctgcct gacaatgcac ttcttgtggt tgacggaggg 240
gactttgtgg ccactgctgc ctacttagtc cagcccagan ggcctctgcg ctggctcgat 300
cctggggcct ttgggactct gggagttggc gcaggttttg cacttggggc caagctgtgt 360
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ctaccctaac tgccctgggt cgtctccccc cctccctccg ctcctcccag gtttggtgcc 480
tgtttgggga tggagccttt ggctacagcc tcattgagtt tgacacgttc gtcagacata 540
aggtaccagt gatagccttg gtaggaaacg atgcaggttg gacccagatt tctcgag 597

<210> 98
<211> 556
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (16)

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<221> unsure
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<221> unsure
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<400> 98
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tcttgtcttg gcctcngcct acagtaactt taggaagagc gtggacagca caggcagaag 180
gcagtaccag gtccagaacg gaccctgcag gtacacgttc ctnctgccgg agaccgacag 240
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ctacgacgac tcagtgcaaa ggctgcaggt nctggagaac attctagaga acaacacaca 360
gtggctgatg aagctggaga attacattca ggacaacatg aagaaggaga tggtggagat 420
ccaacagaat gtggtgcaga accagacacc tgtgatgata gagattggaa ccagcttgct 480
gaaccagaca gcagcacaaa ctcggaaact gactgatgtg gaagcccaag tactaaacca 540
gacgacaaga ctcgag 556

<210> 99
<211> 380
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (14)

<400> 99
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tggcccgcca ggtcaggtgc caccacctca tagccgagtc gcacaaagaa gtctagctgc 180
tccttccaga tggcgagtga gccaccgact ccgtgaatga agaacagcac cacatcagcc 240
tgcgcaccct tgcagctggt gatgcgctgc tcacagtcga tgtggatggt cctcttcgga 300
cgccgtgggc ggcgccgtcg cccgctgcct gggttggccc gggtgtctcc tcctgcgggc 360
tcagccagct caacctcgag 380

<210> 100
<211> 592
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (52)

<220>
<221> unsure
<222> (117)

<220>
<221> unsure
<222> (132)

<220>
<221> unsure
<222> (431)

<400> 100
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tacactgtgg ancttgcagg gctctggtgg atgaattaga gtgggaaatt gcccgcgtgg 180
accccaagaa gaccattcag atgggatcct tccgaatcaa tccagatggc agccagtcag 240

ttgtggaggt accttatgcc cgctcagagg cccacctcac agagttgctt gaggaggtgt 300
gtgaccgaat gaaggagtac gggaacagat tgaccttcta cccaccgcaa gaactacgta 360
cgcgtcgtga gccggaatgg agaatccagt gaactagact tacagggcat ccgaattgac 420
tcagatatca ncggcacccct caagtttgcg tgtgagagca ttgtggaaga atacgaggat 480
gagcttatcg aattcttctc cagagaggct gacaacgtta aagacaaact ttgcagtaag 540
cggacagatc tatgtgacca tcccctgcac agatcctcac gaagagctcg ag 592

<210> 101
<211> 382
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (150)

<400> 101
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ttcctccatc tttgctgtgt gaggccaaaa ctggtgccag gctgacatgt cttactgtgt 180
ggttagacag agcagcaaat ggaatggcga gccttcctcc agcagcagag ccctgccctg 240
accaacctaa gacaatcgaa aaggaatctg gtgacacagt tcaggaagaa acatcagaac 300
ctaactcgga gaaatctgat gtaagtggtg acagcaagca gccaacaaaa ggaaatagcc 360
cagtgacagc caagaactcg ag 382

<210> 102
<211> 640
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (13)

<220>
<221> unsure
<222> (30)

<220>
<221> unsure
<222> (38)

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<222> (56)

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<221> unsure
<222> (122)

<220>
<221> unsure
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<221> unsure
<222> (130)

<220>
<221> unsure
<222> (183)..(184)

<220>
<221> unsure
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<220>
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<220>
<221> unsure
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<220>
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<222> (388)

<220>
<221> unsure
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<221> unsure
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<220>
<221> unsure

<222> (503)

<220>
<221> unsure
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<220>
<221> unsure
<222> (612)

<220>
<221> unsure
<222> (616)..(617)

<220>
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<220>
<221> unsure
<222> (632)..(633)

<400> 102
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gctangatga angacncgcc actccaagtc catgtgctac ttggccaagc tatcactaca 120
cnagancagn ctatagataa aaaaaaggat tgcccccaat tatgtacctg tgagatcagg 180
ccnnggttta ccccgagatc catctatatg gaggcatcga cagtggactg taatgactta 240
gggccattaa acttcccagc cagattgcct gccgacacac agattctcct cctacagact 300
aacaatattg cnaganttga acattccaca gacttcccag tgaacctgac tgncctggcc 360
ttatctctcc acaatttatc ttcagtcnct aatattaatg tacacaagat gtctcagctt 420
ctntctgtgt acctagagga aaacaagcta cctgagctcc cggaaaagtg tctatatgga 480
ctgagcaacn tgcagggact ctncgttaat cacaacctgc tctctaccat ttcctcccgg 540
agccttcatt ggcctacata atcttctccg gcttcatctc acctcacaca gactgcagat 600
gatcaacant cnatgnnttg atnctctccc cnntctcgag 640

<210> 103
<211> 337
<212> DNA
<213> Mus musculus

<400> 103
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gggaatgtca cctagccaga gtggactgtt ggtgggcatt cgatacttca ttgaattctg 120
cagtgccccc ttctggggtg tagttgcaga tcgtttcaga aagggcaaaa ttgtcctcct 180
cttttcgctt ctgtgttggg ttttgttcaa cctgggcatt ggatttgtca aacctgctac 240
cttgagatgt ctaccaaaga tccccccaac agctcacccc accaatgtaa gtcacccagt 300
aactgttctg ccaatgaact cctccactgt gctcgag 337

<210> 104
<211> 382
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (86)

<400> 104
gaattcggcc aaagacgcct aagaacccat gggactccca aggcggctgc tgctgctgct 60
gttgctggcg actacctgtg tcccancctc ccagggcctg cagtgcatgc agtgtgagag 120

taaccagagc tgcctggtag aggagtgtgc tctgggccag gacctctgca ggactaccgt 180
gcttcgggaa tggcaagatg atagagagct ggaggtggtg acaagaggct gtgcccacag 240
cgaaaagacc aacaggacca tgagttaccg catgggctcc atgatcatca gcctgacaga 300
gaccgtgtgc gccacaaacc tctgcaacag gcccagaccc ggagcccgag gccgtgcttt 360
cccccagggc cgttacctcg ag 382

<210> 105
<211> 437
<212> DNA
<213> Mus musculus

<400> 105
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ggatattgat gatccttgtg gttcttacgt ttgttgttgg tgcaaatgtg gaaaagttgc 120
tctgcgaacc ttatgaaaac aagaaattat tacaggtttt ggacactccc tatctgctca 180
aggaacaatg gcaattttat ctttctggca tgctattcaa taacccagac attaacatga 240
cctttgagca agtctacagg gattgcaaaa gaggtcgagg tatatatgct gcttttcagc 300
ttgagaatgt cgtcaacgtc agtgatcatt tcaacattga ccagatttct gaaaacataa 360
atacggagtt ggaaaacctg aatgtgaaca ttgatagcat tgaactgttg gataacacag 420
gaaggaagag cctcgag 437

<210> 106
<211> 169
<212> DNA
<213> Mus musculus

<400> 106
gaattcggcc aaagaggcct acaggggtaa gggggagatg atttttaaaa aaattcagct 60
gttgttaggg gcatgtgaag taggggcatt atgtctgttt cttattacga taaaggctcc 120
tcagtcttta ctgaccccta aagtcctgaa tcacaccagg cgtctcgag 169

<210> 107
<211> 446
<212> DNA
<213> Mus musculus

<400> 107
gaattcggcc aaagaggcct agttcgtatc ttctgttgac tacaaccccc gggacaacca 60
gctctatgta tggaacaact actttgttgt gcgctatagc ctggagtttg gacccccaga 120
tcccagtgct ggcccagcca cttccccgcc tctcagtacc accaccacag cccggcccac 180
acccctcacc agcacagcct cgcctgcagc caccactcca ctcccgccggg cacccctcac 240
cacacaccca gtgggtgcca tcaaccagct gggacctgac ctgcctccag ccacagctcc 300
agcacccagt acccgaaggc ctccagcccc caatctgcat gtgtcccctg agctcttctg 360
tgaacccaga gaggtccggc gggtccagtg gccagctacc caacagggta tgctggtgga 420
gagaccttgc cccaagggaa ctcgag 446

<210> 108
<211> 426
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (87)

<400> 108
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gtgtccggag attgcactgc agcgtantgg cgcgggccgg tggccagtgg cgactccagc 120
aagggctggc tgccaaccct tccggctatg ggcccctcac ggagctccct gactggtcct 180
tcgcggatgg ccgccctgca cccccaatga aaggccaact tcgaagaaaa gctcaaaggg 240

agaagcttgc aagacgagtt gtactgctga cacaggaaat ggatgctgga atacaggcat 300
ggaagctcag gcagcagaaa ttgcaggaag aaaggaagaa ggaacatgat ctcaaaccta 360
aagggacttt actgagaagc ccacttccga atcaataaaa agcagctcct gccccacaaa 420
ctcgag 426

<210> 109
<211> 454
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (18)

<220>
<221> unsure
<222> (448)

<400> 109
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ccccaactac acgagacctg tgttcctgtg cggaggggac gtgaccgggg agtcaggtta 180
cgtggcaagt gagggtttcc ccaacctcta ccccccaaac aagaagtgga tctggacaat 240
tacggtgccc gagggccaga ctgtgtccct gtccttccga gtcttcgata tggagctcca 300
cccttcctgc cgctacgatg ctctggaggt ctttgctggc tctggcacct caggccagcg 360
acttggacgc ttctgcggca ccttcaggcc tgcacctgta gtcgcacctg tcaaccaagt 420
gactttaagg atgacaactg acgtgggnct cgag 454

<210> 110
<211> 377
<212> DNA
<213> Mus musculus

<400> 110
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ttgtgattgc ttgtgtgctt agtctgattt ccaccatcta catggcggcc tccataggca 120
cggacttctg gtatgagtat cgaagtccca ttcaagagaa ttcaagtgac tcgaataaaa 180
tcgcctggga agatttcctc ggtgacgagg cggatgagaa gacttacaac gatgttctgt 240
tccgatacaa cggcagcttg ggctgtgga gacggtgcat caccataccc aaaaacactc 300
actggtatgc gccaccggaa aggacagagt catttgatgt ggttaccaaa tgcatgagtt 360
tcacactaaa tctcgag 377

<210> 111
<211> 426
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (117)

<400> 111
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aggaagcttg ttcctttgag taagaaggtt gaacgaaggg aaaaacgaag agagganaaa 120
gcattaatag ctgcccagct ggacaatgct attgagaagg aattgctgga gagactgaaa 180
caagatacgt atggcgacat ctacaacttc cccatccatg ccttcgacaa ggccctagag 240
aaacaggaag cagaaagtga ctctgaagat gaagacgaag aagaggatgt ggggaaaaga 300
gagtttgtag aagatgagga ggtggaggag agtgacctga gtgactttga ggatatggat 360
aaactgaata ctgacagtga ggaagaccag gatgatgaat cctccaatga agaagagcga 420
ctcgag 426

<210> 112
<211> 460
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (101)

<400> 112
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ttggaccccc agatcccagt gctggcccag ccacttcccc gcctctcagt accaccacca 180
cagcccggcc cacacccctc accaccacag cctcgcctgc agccaccact ccactccgcc 240
gggcacccct caccacacac ccagtgggtg ccatcaacca gctgggacct gacctgcctc 300
cagccacagc tccagcaccc agtacccgaa ggcctccagc cccaatctg catgtgtccc 360
cttgagctct tctgtgaacc cagagaggtc cggcgggtcc agtggccagc tacccaacag 420
ggtatgctgg tggagagacc ttgccccaag ggaactcgag 460

<210> 113
<211> 501
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (22)

<220>
<221> unsure
<222> (35)

<220>
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<222> (68)

<220>
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<220>
<221> unsure
<222> (421)

<400> 113
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gggcaganaa tcccaaggtc tgactcctaa ccgtgagcgt ccaggcgcta ctctgggccc 120
ccttccggtc cccaccttca cgccgctgag tctgggaccc cccgactcgc taaggaccaa 180
cttcgcacta caagaagaac acggggtgcc ccaggacgag cgacgctgcg agttaaggct 240
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ccagcctctc cggctccacc gcaatggttc ccgcgtcccc acgccttaaa ccgggagccg 360
gacccggggc ctcntgtcat gctgttgctg ggacccaaag cgcagacccc atttttnccc 420
ncaggcgcgg gggcgaacta agaacgctga gccccacaga gccgccagcg atgttaaact 480
taaatgcccg gtgcgctcga g 501

<210> 114

<211> 419
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (119)

<220>
<221> unsure
<222> (392)

<400> 114
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tcacgggcct ccggctccag cacagcatat cgacgtagct gccggtcggg acaaatgtna 120
gaaaagcgaa gaacaagaac tggagcccca gggaatggac ctgagccctc agacactggt 180
tctccttggg tttcagtctc ggactctagc tcagctgcca ccagactctg tagctccagc 240
cgctccagag tccgagctgc ttggagttcc acatcaaaca agtgggcaga agtgacccgg 300
agaaagcact ccttgccttg cacaccccca agtccctgca agggacatac caacatgggg 360
cgacagagct cagcttccac tgccttctgc tnctgctcct cctcctcctc ctcctcgag 419

<210> 115
<211> 307
<212> DNA
<213> Homo sapiens

<400> 115
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tcggttgctg caaaatagtg aaacctctgc cacacaccag atgtcctggg gacccctcat 180
ccggtctgaa gaagcaggcc tgggtgccgg ttatgtggtc cttattgtgg tggccatctt 240
cgtgctggtg gcgggaacag ccacccttct gatcgtgcgc taccagagaa tgaacgggag 300
tctcgag 307

<210> 116
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (91)

<220>
<221> unsure
<222> (198)

<400> 116
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attaaaagtg acttgaagat tagaattgtt catgtctttc tgtttttgt ttttgttttt 180
tgagacattg tttcactntt gtcgcccagg ctggagtgca atggcgcaat ctcagctcac 240
tgcaacctcc acctccctgg cctcaagtga tccacccacc cgtctcgag 289

<210> 117
<211> 330
<212> DNA
<213> Homo sapiens

<400> 117

gaattcggcc ttcatggcct aatattttgt ttagcatttc tagttttcct cagtggatct 60
gtcatcccag aaatggaagt cccctacata tattttctaa gctttttgga gttggttttt 120
tgtttttttt tccctccctt tctgcctctc tccctccttt tctcctccct ccctgcctct 180
tccgtccctt cctcccctcc ccgctctctc tctccgtccc tcctttcttt ctccctgcct 240
gcctgcctac ctgcagttgt ccgagcaggc attactgggg ctggagggtc cctttccaag 300
atggctcatt cacatggctt ccagctcgag 330

<210> 118
<211> 304
<212> DNA
<213> Homo sapiens

<400> 118
gaattcggcc ttcatggcct aaaaaaaatt atttaatttg ctaatctttg tattctagtg 60
tgctgccaaa gtgagcacat aattttgttt ttttgtttgt ttttgtttct taatgtttgg 120
agaatttttg tggttttttt gtttgttctt tgagacgtac tcccgccctg ttacccaggc 180
tggagtgcaa ttgcgcgatc tgggctcact gcaacctccg cctcccgggt tcaagcgatt 240
ctcctgcctc agcctccaga gtagctggga ttacaggcgc ccgccaccac gccacacgct 300
cgag 304

<210> 119
<211> 348
<212> DNA
<213> Homo sapiens

<400> 119
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atgttctgta atcagcaaag tgtatgtgac ccgccttcac aaaataatgc agcaaatatt 120
tccatggttc aagctgcttc agcaggaccc ccatctctga gaaaagattc gactccagtt 180
atagccaatg tagtatcatt ggcaagtgcc cctgctgctc agcctacagt gaattctaac 240
agtgtcttac aaggtgcagt tccaacagta acagcgaaaa tcatcggtga tgcaagtact 300
caaacagatg ccctgaaact gccaccttcc caacccccaa ggctcgag 348

<210> 120
<211> 323
<212> DNA
<213> Homo sapiens

<400> 120
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gtgtttctgc ttcctgggtc tttattacag gaaagatggt tgacatatca cagggcccag 120
catccaggat ctgtgggaca gacccagcag gtggtgcccc atgtaagaag caatgaaatg 180
catcatgatg gaaccctcaa aaacgaaagt gaagttactg cacacccctt aggtcctctt 240
tggattccag catgatgcat caaaccttac cacggcatga ctagggccca acctgctacc 300
agaaataaag gaaataactc gag 323

<210> 121
<211> 329
<212> DNA
<213> Homo sapiens

<400> 121
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ctgttaaaga ataccgaatg gaagttccat cttcgttttc agaagacatg tcaaatatca 120
ggtcacagca tgcagaagaa cagtccaaca atggtagata tgacgattgt aaagaattta 180
aagacctcca ctgttccaag gattctaccc tagccgagga agaatctgag ttcccttcta 240
cttctatctc tgcagttctg tctgacttag ctgacttgag aagctgtgat ggccaagctt 300
tgccctccca ggaccctgag gagctcgag 329

<210> 122

<211> 379
<212> DNA
<213> Homo sapiens

<400> 122
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aagtttttt tgttttgttt tgtttttgag atggagtcta gctctgtcac ccaggctgga 120
gtgcaatggc acgaactcag cccactgcaa cccccgcctc ccgggttcac accattctcc 180
tgtctcagcc tcccgagtag ctgggaccac aggcatgagc caccacaccc agctaatttt 240
tgtattttta gtagagacag ggtttttcca tgttggtcat gctggtctcg aactcccaac 300
ctcaagtgat cctcctgcct cggcctccca aagtgctggg attacaggag tgagccactg 360
cgcccggcca gctctcgag 379

<210> 123
<211> 245
<212> DNA
<213> Homo sapiens

<400> 123
gaattcggcc aaagaggcct atgaattcta gacctgcctc gagtttcctg tttttcttct 60
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gttacactat taattctttc tacatcttga agtttctttt ccttcctcct cctctctctg 180
caaccccccat catacacaca cacacacaca catcatacac acacacacac acacacccac 240
tcgag 245

<210> 124
<211> 134
<212> DNA
<213> Homo sapiens

<400> 124
gaattcggcc aaagaggcct aatgaatata tatatatgaa aaaacaatat atatacatat 60
tgggtttgat actatccaca gtttcagtca tcactgcgag gtcttggaac tgtgactact 120
ataaggggct cgag 134

<210> 125
<211> 216
<212> DNA
<213> Homo sapiens

<400> 125
gaattcggcc aaagaggcct agtgggggtg ggaatctagg gtgtacttaa gatgtcttca 60
aatgttttta ttttattttt atgtatttat tttatttatt tatttatttt ttcagagaca 120
gaatctcggt tgggcacggt ggctcatgcc tgtaatccca gcactctggg aggccgaagt 180
gggaagatcc ctcgaggcag gtctagaatt caatcg 216

<210> 126
<211> 344
<212> DNA
<213> Homo sapiens

<400> 126
gaattcggcc aaagaggcct aggagaaaga agcattgtgg ctttatatcc tctgggcctg 60
ggtttcctga agtcaccaca catagaggag agagaaaatg gctgagttaa agtacatttc 120
tggatttggg aatgagtgtt cttcagagga tcctcgctgc ccaggttccc tgccagaagg 180
acagaataat cctcaggtct gcccctacaa tctctatgct gagcagctct caggatcggc 240
tttcacttgt ccacggagca ccaataagag aagctggctg tataggattc taccttcagt 300
ttctcacaag ccctttgaat ccattgacga aggccacgct cgag 344

<210> 127

<211> 308
<212> DNA
<213> Homo sapiens

<400> 127
gaattcggcc aaagaggcct agtgagaaaa gcacactgtt tcaattgcaa atttcaggca 60
accctgttgc ttctgacaaa ataatagttt gagtagcctc aggttctggg tggcgtccct 120
ctcaaaaagt ctgcttctgt gagttgtaat tatcaatggc tcttggcttc ttagaaaaag 180
tacccagctt tcctttctac tttattgttt tgttttgttt tttagagaca gggtcttgtt 240
ctgctgccca ggctggagtg cagtggcatg atcggaactc actgcagtct caaactcccg 300
ggctcgag 308

<210> 128
<211> 277
<212> DNA
<213> Homo sapiens

<400> 128
gaattcggcc aaagaggcct agtcacagtg aactgcaaag aagttattat agcagatgaa 60
tacaaactac ttggtgactg gctggatcct tgaatggtgg tacagagctg tgatctggag 120
tgtggtctct ggagccaggc tgctccagtt tattttatct tattttatct tatcttattt 180
tgttttattt tattggagat ggagtctccc cattacccag gctgcagtgc agtggcatga 240
ccatggctca ttgcagcctc aacgcccagg actcgag 277

<210> 129
<211> 185
<212> DNA
<213> Homo sapiens

<400> 129
gaattcggcc aaagaggcct aagtgtgttt tccctctttt agtttttgtg aaagctggtt 60
gttaaaaaga acctggtacc ttctccttct cctcttgttt ccactctggt catgtgatct 120
ctatacacca gctccccttc accttctgcc atgagtgaaa gcagactgag gccctcagcc 180
tcgag 185

<210> 130
<211> 352
<212> DNA
<213> Homo sapiens

<400> 130
gaattcggcc aaagaggcct agtccacaat aaaaccaatt aaattttatg tccacaataa 60
aatgcaaagt ctttgttgtg acactcagaa ctattcccag ccacctctcc tgccattttc 120
ctgcaatatg atttatccta ggcatactga accgtcagtc agtctcctgg attgctatgt 180
atttgcacat gcctcttctc tctttgctca gctacatgtc atgcttcaaa cctcaggtga 240
gatgatagtt tctccatgta accttcaggt ggggctaggt accttgcatc tgtgcttcct 300
tggcaccttg catttagctg catggctctg cagctctttc actaaactcg ag 352

<210> 131
<211> 445
<212> DNA
<213> Homo sapiens

<400> 131
gaattcggcc aaagaggcct agcaatacat tcaataacat aactaaagaa cagaggccag 60
gcacagtggc tcacgcctat aatgttttaa ggcactctgt attacctttt tgcatttctt 120
gagaaagact gtctaaagaa aaccacctga taaatgatga ataaatattt ttaatgaatc 180
tgtaggaaaa aagattactc ttaaaatgat ctacatttga aaaatttcaa tacattcaat 240
aacataacta aagaacagag gccaggcaca gtggctcacg cctataatcc cagcactttg 300
gaaggctgag atgggcggat caagaggtca ggtgttcaag accagcctga ccaatatggt 360

gaaaccctgt ctctactaaa aatacaaaaa tcagccagtc atggtggtgc gcacctgtag 420
tcccagctac ttgagaggac tcgag 445

<210> 132
<211> 450
<212> DNA
<213> Homo sapiens

<400> 132
gaattcggcc aaagaggcct agattcattt aaaggattta caaattcatc aacccctgaa 60
aactaaagca aattgaacag gaaaaaaaaa aagaagatgg gtttttaag tccaatatat 120
gttattttct tctttttgg agtcaaagta cattgccaat atgaaactta tcagtgggat 180
gaagactatg accaagagcc agatgatgat taccaaacag gattcccatt tcgtcaaaat 240
gtagactacg gagttccttt tcatcagtat actttaggct gtgtcagtga atgcttctgt 300
ccaactaact ttccatcatc aatgtactgt gataatcgca aactcaagac tatcccaaat 360
attccgatgc acattcagca actctacctt cagttcaatg aaattgaggc tgtgactgca 420
aattcattca tcaatgcaac ccatctcgag 450

<210> 133
<211> 322
<212> DNA
<213> Homo sapiens

<400> 133
gaattccgcc aaagaggcct aagctttctt cccctttgatt ctattccact gactgccttc 60
tgtttacaca atgagagtga tgctttcatt ctttatcccc aaaccaatca ggatcagatt 120
tgcaaactca tcaggaaaaa atggaagaaa agggagtcct ctgaaatcaa gacttttcta 180
ctgcttcagt aacattaaaa ataaacagct aggagaggtt tttttgtttt tgtttttgtt 240
tgtttttggc ttggggagtg tgggtggaag gggttgtct aaatggtgtg caaggaaaat 300
caatacccaa ctaacactcg ag 322

<210> 134
<211> 422
<212> DNA
<213> Homo sapiens

<400> 134
gaattcggcc aaagaggcct agggtcacag ggtggttatc tcacttcgca gcttttcctt 60
tctgaggcca gaaaaggaag gggtttgcct tcctctagta tttattcttc tggactacat 120
caagtactct aagcctgatg ttaggcaata actgcccatt agccattggc tacatttgcc 180
tctttcttgt tccaacaata ttagtgatct gtggtacagg acacactctt tgtttgctag 240
ctacaaattc taacaaagct aagttttatt catgtagtta ttcacaaatt aaaacaacac 300
acacaccaca cacacacaca cacacacaca cacacacaca cacacacata ccacaaaacc 360
cagagatcac caaatactat ataaataaac aagcccaaag tcacagatca gggacactcg 420
ag 422

<210> 135
<211> 308
<212> DNA
<213> Homo sapiens

<400> 135
gaattcggcc aaagaggcct aagtcatcat atctcatctg agttcttgca atagctccca 60
agttggtttt cttgcttcca tacttcctcc tataaactgc tcttagcaca gcagccaaag 120
120
cagtgaaaat aattaagctc atgccacttc tctgtcgaag cctcctttgg ctatgcgttt 180
tgctcaggga aagctggatc ccttacaatg ttgtacaggc cctacacaat ctgatccctg 240
ttacttctga ggctttatct ccaagtgccc ttctcctcgc tcactctact cagccacacc 300
aactcgag 308

<210> 136

<211> 298
<212> DNA
<213> Homo sapiens

<400> 136
gaattcggcc aaagaggcct aaaagctttg gagatattga atcatgttac catttctgtt 60
tttttccacc ctgttttctt ccatatttac tgaagctcag aagcagtatt gggtctgcaa 120
ctcatccgat gcaagtattt catacaccta ctgtgataaa atgcaatacc caatttcaat 180
taatgttaac ccctgtatag aattgaaagg atccaaagga ttattgcaca ttttctacat 240
tccaaggaga gatttaaagc aattatattt caatctctat ataactgtca acctcgag 298

<210> 137
<211> 372
<212> DNA
<213> Homo sapiens

<400> 137
gaattcggcc aaagaggcct accctcttga ccccctaggt ttgattgccc tttccccgaa 60
acaactatca tgagcgcgag gctgccggtg ttgtctccac ctcggtggcc gcggctgttg 120
ctgctgtcgc tgctcctgct gggggcggtt cctggcccgc gccggagcgg cgctttctac 180
ctgcccggcc tggcgcccgt caacttctgc gacgaagaaa aaaagagcga cgagtgcaag 240
gccgaaatag aactatttgt gaacagactt gattcagtgg aatcagttct tccttatgaa 300
tacacagcgt ttgatttttg ccaagcatca gaaggaaagc gcccatctga aaatcttggt 360
caggcgctcg ag 372

<210> 138
<211> 190
<212> DNA
<213> Homo sapiens

<400> 138
gaattcggcc aaagaggcct actgtcttaa agaatttctt cctttggttt atttcatctt 60
tctactaggt cttttccttc agaattcaca cttgccctat tgtctcccat tttgaaaacc 120
ctgtcctttg acctgcatat tttctgttgc tgtcatgttt ttctattctc tttcacaggc 180
attactcgag 190

<210> 139
<211> 204
<212> DNA
<213> Homo sapiens

<400> 139
gaattcggcc aaagaggcct acgagccggc agttgacatt tccaaatata aaatcgtgca 60
ttacagatgc tctctggatt gcccagattt ctgttccaac gcagccactt tccattttta 120
ttttttatta ttcttttgaa acagagtctt gctctgtcac ccaggctgga ggcaggtcta 180
gaattcaatc gggttctccc tata 204

<210> 140
<211> 329
<212> DNA
<213> Homo sapiens

<400> 140
gaattcggcc aaagaggcct agcagtgagc tgagataacg ccagtgcatt ccagcctggg 60
cgacagggtg agactcttga ctaaacaaca acaaaaacaa caacaacaaa attaggaata 120
gagatctcgt tttgagagaa tttgagacct gttatctctt agtttttgcc ttttttccct 180
ctatctcaga ggaagccaat atctactgtt tgatgttagc tatctttaac atcattttta 240
aaaaaaccct attattagga agtatggtag atatatttaa atttttaccc ttctttttgc 300
taactgaaaa tatatgcgta gccctcgag 329

<210> 141
<211> 344
<212> DNA
<213> Homo sapiens

<400> 141
gaattcggcc aaagaggcct actcatccaa attgcttagt tccctctatt catgtacatg 60
tggatggtac cattcatgct ttattactca tacgaaaatt tcggctttat ccttgactct 120
ccctcttcct cgttacccac atcccattag tctctatcta gtattttata taaccatccc 180
ctcatctcca ttcctactcc ctttacccta tgaaggccct caccattctt tccactagtt 240
attgttatag cttgttaact gtttttattc tcctgtctca agtctcattt tgctccaata 300
taacttccat atttttgcca aaacaatctg tctatacact cgag 344

<210> 142
<211> 330
<212> DNA
<213> Homo sapiens

<400> 142
gaattcggcc aaagaggcct aatgtaacaa acctgcacgt tgtgcacagg taccctagaa 60
cttaaagtat aatttaaaaa aaaaattttt tttaagtata aacccaaaac aactgtctta 120
aaatacagtg actcaaaata catgccccaa tgagtaggta ctcccaaatc tggctaatca 180
ctggaatgac ctaagaaccc tttttttcag tcctgataga ctctatctcc agggctagag 240
gcctaggcat ctgcatttta aagttcccca catgagtctt acggccaggc aagtttagga 300
accccagctt aatgtatctg ttgtctcgag 330

<210> 143
<211> 275
<212> DNA
<213> Homo sapiens

<400> 143
gaattcggcc aaagaggcct aatctgagtt tgtttttcaa agatcactaa attttagtta 60
tgattatatc acattttcca aaatgtgtgg cagtttttgc cctccttgct ctgagtgttg 120
gtgcactgga cacttttatt gctgcagtat atgagcatgc ggtgatatta ccaaacagaa 180
cagaaacacc tgtttcaaaa gaagaagctt tgctcctgat gaacaagaac atagatgttt 240
tggagaaagc agttaagctg gcagctttac tcgag 275

<210> 144
<211> 290
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (152)

<400> 144
gaattcggcc aaagaggcct actagacctg ccacaagtcc aaactcctag ctttaatttt 60
gagtgttttt aacaaactgg cctctgttta tcattgtttc ttctagtact tccccaagga 120
tgattgtacc ctcagcactc aagaccgctt gntgttcccc tacacacttt ttgttcaagc 180
tgtttgtttt acctggaatg ctgtctttgc accttcttcc tggacctggt tcactcttgt 240
tgcccaggct ggagtgcaat ggcgcgatct cggcacactg caacctcgag 290

<210> 145
<211> 386
<212> DNA
<213> Homo sapiens

<400> 145

gaattcggcc aaagaggcct acagagaggc tgagaccaac ccagaaacca ccacctctca 60
cgccaaagct cacaccttca gcctccaaca tgaaggtctc cgcagcactt ctgtggctgc 120
tgctcatagc agttgccttc agcccccagg ggctcgctgg gccagcttct gtcccaacca 180
cctgctgctt taacctggcc aataggaaga taccccttca gcgactagag agctacagga 240
gaatcaccag tggcaaatgt ccccagaaag ctgtgatctt caagaccaaa ctggccaagg 300
atatatgtgc cgaccccaag aagaagtggg tgcaggattc catgaagtat ctggaccaaa 360
aatctccaac cccaaaccca ctcgag 386

<210> 146
<211> 133
<212> DNA
<213> Homo sapiens

<400> 146
gaattcggcc aaagaggcct agcagtgaat ggcacatggt atgtattcaa tgaacgttca 60
acaaatcttt gtttttatcc ttattattat ccttcctttc caccctctcc ttgctagaag 120
tcacaggctc gag 133

<210> 147
<211> 197
<212> DNA
<213> Homo sapiens

<400> 147
gaattcggcc aaagaggcct agccagtatt gtaatctaca actttttaaa attcactcat 60
ctgtcaagaa gcccaagaac aatcacctct ctaagatctt cagaatacaa aaaatgtatt 120
gttttaaggt ttttttttt ggttttttgt tttttggttt tttgagacaa ggtcttgctc 180
tgtcacccag tctcgag 197

<210> 148
<211> 446
<212> DNA
<213> Homo sapiens

<400> 148
gaattcggcc aaagaggcct agtttctggt ggtaaagaaa gatgaagacc tcttccggga 60
atggctgaaa gacacttgtg gcgccaacgc caagcagtcc cgggactgct tcggatgcct 120
tcgagagtgg tgcgacgcct tcttgtgatg ctctctggga agctctcaat ccccagccct 180
catccagagt ttgcagccga gtagggactc ctcccctgtc cctctacgaag gaaaagattg 240
ctattgtcgt actcacctcc gacgtactcc ggggtctttt gggagttttc tcccctaacc 300
atttcaactt tttttggatt ctcgctcttg catgcctccc ccgtcctttt tcccttgcca 360
gttccctggt gacagttacc agctttcctg aatggattcc cgcccccatg cctctttggc 420
cgattgaatt ctagacctgc ctcgag 446

<210> 149
<211> 422
<212> DNA
<213> Homo sapiens

<400> 149
gaattcggcc aaagaggcct aaaaagctca acttgaagct ttcttgcctg cagtgaagca 60
gagagataga tattattcac gtaataaaaa acatgggctt caacctgact ttccaccttt 120
cctacaaatt ccgattactg ttgctgttga ctttgtgcct gacagtggtt gggtgggcca 180
ccagtaacta cttcgtgggt gccattcaag agattcctaa agcaaaggag ttcatggcta 240
atttccataa gaccctcatt ttggggaagg gaaaaactct gactaatgaa gcatccacga 300
agaaggtaga acttgacaac tgtccttctg tgtctcctta cctcagaggc cagagcaagc 360
tcattttcaa accagatctc actttggaag aggtacaggc agaaaatccc aagtttctcg 420
ag 422

<210> 150

<211> 300
<212> DNA
<213> Homo sapiens

<400> 150
gaattcggcc aaagaggcct aaactataga tacgactcta aggaccatcc cataagtagg 60
gcacataggg aatagaattc ataccagaat tttaggattt tattttacct tctaatatat 120
aattagttct aaatgtgtgt taaccctttt ttcccccaat ttaagggttt gtgttttcat 180
atcttatctt tttggattgc tcttataata atgaactctt cctgtatagg tatgaaatca 240
ccagaagaac aactggtgtg tgtgccacca caggaggcct ttcctaacga cgccctcgag 300

<210> 151
<211> 374
<212> DNA
<213> Homo sapiens

<400> 151
gaattcggcc aaagaggcct atattattta cctctgttac cctgtaggtc tctaaacttt 60
taagtagact tattttttaa aaagctacta tactcccttc tttctgaatc aaaaacattc 120
agagataaga attagatgga agtaaagctc cctgtggttt gtgctccatc acaatttttt 180
tttttttttt tttttttttt ttagtagagg cagggtttcc ccatgttggc caggctagtc 240
ttgaactcct gacctcaggt gatcccccctg cctcggcctc ccaaagtgct gggattgcag 300
gggtgagcca ccacgcccag ccttcatcac agttttttat ggaaacagaa tacaaagcag 360
caaggcagct cgag 374

<210> 152
<211> 347
<212> DNA
<213> Homo sapiens

<400> 152
gaattcggcc aaagaggcct aaaataagaa tatgaaaagt tgctcaatgt cattagctaa 60
ttgggaaatg caaattaata cctcaatgaa tatcactaca tacacaccag aatggccaaa 120
atttaaatga ctgacaatat caagtgttgg tgaaaatgtg gaagatctga aatgctcata 180
cattgctggt aagaatgtaa aatggtacag acacattgga aaaataattt ggcaatttct 240
ttaaaagtta aacattactc aacaatgaaa atataatatt attgatacac agcaacttgg 300
aggaatctct aatgctttat actgagttga aagaagctag tctcgag 347

<210> 153
<211> 222
<212> DNA
<213> Homo sapiens

<400> 153
gaattcggcc aaagaggcct attgaattct agacctgcct cgaattgtcc aaggaattga 60
atggggagct ggtgcatttg tacactactt ctgttgctca ctgatgggca acagggcttt 120
tatccccagc ctttccaggc tgccccgggg agacagcagc tatggggagg caccaaccca 180
tgggctgtac tcattccaga atccttcctc ccctcactcg ag 222

<210> 154
<211> 458
<212> DNA
<213> Homo sapiens

<400> 154
gaattcggcc aaagaggcct agcctcgagt gacttggatt ttagtggtat aaccacagaa 60
atgtgtttta cctttcaggc tgcaggaaat ctgcagccat tctcccagcc aagttcgaca 120
cctatcttca ccaatatgcg tagaattcag gccacggaga taacaagcct ataccactca 180
gaacagaaat ggtccttaat aatcatagaa tgattatgcc aaggaaatgg aaatccacaa 240
acaatcctaa atctccttta aataagttac aatctcaccg ggcacggtgg ctcgtgcctg 300

taatcccagc actttgggag actgaagcag gaagattgct tgagaccagg agtttgagac 360
caccctgggc aatatagcaa gacccgtctc tgcaaaaaaa attaaaaact tagctggtgg 420
tgggtgcctg taatcccaac tacccggtgg ggctcgag 458

<210> 155
<211> 353
<212> DNA
<213> Homo sapiens

<400> 155
gaattcggcc aaagaggcct atggaaaaca tgttccttca gtcgtcaatg ctgacctgca 60
ttttcctgct aatatctggt tcctgtgagt tatgcgccga agaaaatttt tctagaagct 120
atccttgtga tgagaaaaag caaaatgact cagttattgc agagtgcagc aatcgtcgac 180
tacaggaagt tccccaaacg gtgggcaaat atgtgacaga actagacctg tctgataatt 240
tcatcacaca cataacgaat gaatcatttc aagggctgca aaatctcact aaaataaatc 300
taaaccacaa ccccaatgta cagcaccaga acggaaatcc cggtactctc gag 353

<210> 156
<211> 272
<212> DNA
<213> Homo sapiens

<400> 156
gaattcggcc aaagaggcct aagtgagtaa gggatattta tagatttttt aaaatgctta 60
gtgcatcctg ctatttcctc attatatgta tgtctaggtt tggtcaagac catgccaggt 120
caaaccttat ttggaatttc aaaacacgag aagaactgaa agatactctt gaatctgaaa 180
tgagagcatt taatattgac agagaacttg gaagtgcaaa tgtgatctcc tggaaccacc 240
atgagtttga ggttaaatat gagctgctcg ag 272

<210> 157
<211> 312
<212> DNA
<213> Homo sapiens

<400> 157
gaattcggcc aaagaggcct aaggtatata aaagtcctag cacagagcgt gtcatataat 60
atggcttcac aagtaccctc atctcctttc cagtcgtttt ttgtttttgt ttttgttttt 120
ttgagaccat ctcactctgt tgcccaggct ggagtgcctc ttcattttta tttctttatt 180
cagcaagtat tgatcaaatg tgctttgtac caggtactga gctcttcgtt gggatataat 240
ggtgatcaag gagattgtag attctggcag ggaaaactga catcaaacac gacgaccccg 300
acctgcctcg ag 312

<210> 158
<211> 445
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (68)

<400> 158
gaattcggcc aaagaggcct agtctgctat gctttagtag cattctgtgt gtctttttgt 60
caaagctntt aaaacgtatc attgtcctta ccaatcccca ctggactgta agcactctga 120
gaatgggcac tctttctttt ctgtcgccag tgtctggcac gtagtagctg ttcagtaatg 180
ctgagtatga caaactgtat tagtcatata gattaccaaa gtgtatcttg gcacctaaga 240
aaatgagtag gcaatgtgag gtgagtatac tttgaataat cttgaaatgc actacagtca 300
catatgcacg tatgatttct gttatttgga taattctgtt ggatgattat ttactatgtg 360
aaaatattgt cataaaatgt atgacacttt tattccttat tagattatgt tatatgtttc 420
atagaatgat accgcttttc tcgag 445

<210> 159
<211> 165
<212> DNA
<213> Homo sapiens

<400> 159
gaattcggcc aaagaggcct accagcaagg attggaaatc aacaagacaa ctgaatgaaa 60
ctcaggtctg ttttcctcaa agtgtggtcc tgggttcagg tgctcacatc ggaattacat 120
aattgtgcaa aacttggact gccctgtgtc cctagagacc tcgag 165

<210> 160
<211> 270
<212> DNA
<213> Homo sapiens

<400> 160
gaattcggcc aaagaggcct agagtaataa gtactgggac aataacaact acatactaat 60
tattccaaac attaaagaac agaggttttt tgttttttgt tttctagtag aaaaacctaa 120
gtttagagtt cccaactttc atttttttct aatataattg agcaaaagca caacaaaaat 180
gaatatatga tgttgatttt tgggctcatt ttattttttt cttctttttt tcccactcat 240
ggtactactg tgcattgtga caggctcgag 270

<210> 161
<211> 334
<212> DNA
<213> Homo sapiens

<400> 161
gaattcggcc aaagaggcct atgagaagag tggcgtagtt ttacattttt cctaaatctc 60
cttaaggtct gccttaatag aaagcatcag ctggcttctg cattctgtcg acagggatat 120
gttggggttt ttttgttttt tgttgctgtt gtttttttgag acggagtctt gctctgtcgc 180
ccaggctgga gtgcagtggc gctatctcgg ctcactgcaa gctccgcctc ccgggttcac 240
gccattctcc tgcctcagcc tcccgagtag ctgggactac gggcgtctgc caccacacct 300
ggctaattat tttgtatttt tagtgggact cgag 334

<210> 162
<211> 180
<212> DNA
<213> Homo sapiens

<400> 162
gaattcggcc aaagaggcct actgaataac ataattgtgc cctttattaa gttgttacta 60
ttattatttg tggagacggg gtctcactct gctgccaggc tggagagcag tggcgtgatc 120
atagctcact gcgggctcaa gggatcctcc tgcctcagcc cccagttgcc aggactcgag 180

<210> 163
<211> 307
<212> DNA
<213> Homo sapiens

<400> 163
gaattcggcc aaagaggcct aaaaatatat tttttactct gtgtcctcaa ttcccaggac 60
aatgtctgtt cgacaaaagg tgagcgctga gtgtttgggg ttttttgttt gttttttgta 120
ttttttgaga cagggtctcg ctttgccacc caggctggag tgcagtggtg cacacatggc 180
tcactacagc ctctacctcc cgggctcaag ggatcctccc acctcagcct cccatgtagc 240
tgggactaca ggtgtgcacc atcacaccca gctaattttt gtattttttg tagagacgga 300
actcgag 307

<210> 164
<211> 361

<212> DNA
<213> Homo sapiens

<400> 164
gaattcggcc aaagaggcct agaaattaaa aagtcattca acttatagtt caggagagcc 60
attctttcat tgctcatctt ttgccttttt caaaatgagg ttgaccacag atgagtctag 120
ggaggggaat gacgtgggga tcgtgacttc tgcaggggta gtcttttcca cttttcccct 180
gtccatctgt tttttcttct tcttttcttt ttttctgaaa gagactctcg ctctgttgcc 240
caggctagag tgcagtggca cgatcatagc tcactgcagc ctccaactcc tgggcgcagg 300
tgatcctcct gcctcagctc ctgagtggct gggacaaacg gcacatgtca ccactctcga 360
g 361

<210> 165
<211> 357
<212> DNA
<213> Homo sapiens

<400> 165
gaattcggcc aaagaggcct atgtgtatgg tatctgtgtg aattttgact gtttctcccc 60
tctcttcttt agtcattacc cctgtttttg gttcattcct atcagtaaac aatctctggt 120
agagacttgg taagaaaact caaccattcc cttaaaaaaa gtcagcctct accccttcct 180
tagccagatg cttcagggat ggtctgcttg caacacttcc tgtccttcac cttctttcaa 240
ctgtttaacc tgccttattc tttttttgt gagacggagt cttgctctgt ctcccaggct 300
ggagtgcagt ggcgcatgtt ggctcactgc aagctctgcc tcccgggttc actcgag 357

<210> 166
<211> 149
<212> DNA
<213> Homo sapiens

<400> 166
ctcgaggatg tgccgtactg cctttaatat gtgcatgagt tactcatggg gaaaatgcct 60
tccctttctt tctttatact tttttttttt ttttgagatg aagtttcact cttgtcaccc 120
agactcgagg caggtctaga attcaatcg 149

<210> 167
<211> 410
<212> DNA
<213> Homo sapiens

<400> 167
gaattcggcc aaagaggcct agaataattc accagtaaaa ctgttcaggc ctggtgtttt 60
ctgttttaaa aggttaataa ctgttgattc aattttctaa tagatacaga tctattcaga 120
ttattgatat agtttcttta atagttaaca ggtttgttca ggttatctgt ttttctttgt 180
gagaactttg gtagattgtg tcttttcacag aatattggct tatttcatct tactaaattt 240
ttggtgtaca gagttgttca tagtattcct ttgttgtact tttaatgtac ttgggataag 300
taatgatgac ccctcttcca tttgttacat tagtaatttg tgccttctct ctttttcttc 360
ttttgttttt ttggagacaa agagtctcac tgtcacccag gcgactcgag 410

<210> 168
<211> 369
<212> DNA
<213> Mus musculus

<400> 168
gaattcggcc aaagaggcct agatatttga aagacgagtt tgttctacct agcaccctag 60
ctctagctct gtcagatacg ttaatgcata catcctctct aatgcatgtt catttattgc 120
tgcagtttgg ttcttctgga gtattttcat catttagcta ttggaataca attatgaaaa 180
ccaactgttg aacatacttg gagtagctgt ttctttccta aagaaccaaa gttgttttca 240
gctaatagaa caggttgaag tccgcctgca ttagctgtgt tttccctcat cttgttagag 300

ggatgcacag ggcacggtga catcatttcc ctcatgttgt tagagggatg cacagggccc 360
ggtgtcgag 369

<210> 169
<211> 455
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (29)

<220>
<221> unsure
<222> (38)

<220>
<221> unsure
<222> (60)

<220>
<221> unsure
<222> (399)..(402)

<220>
<221> unsure
<222> (408)

<220>
<221> unsure
<222> (423)..(425)

<220>
<221> unsure
<222> (444)

<400> 169
gaattcggcc aaagaggcct agagctttna aagtagangg tagggtgctt tctaattctn 60
attatttgat ccaaatgtgt aaaacagtag ctctagactg gtgaagcatt tgggacacag 120
ttggacattt taaaagccat ttctcaagct ttaagacatt tagtacagcc tttgcagtgc 180
tcagcagagg cgcgaatgca agcagaggcg cggccatgag gtcggtgtcc gacactggcc 240
gtggctggag agatgcagta atacttgtgg agtgtgagca gcagtggata ggacacgtga 300
cgtgcacggt gccttgggag agcatgggct ggtcctgcag gactctgcat ctcactgtga 360
ctgtgcagca cattttaggc tgtgtttgaa tgtctcacnn nntactgntt agttgtcgaa 420
tgnnngaatc caagaaggag ctgngccagg tcgag 455

<210> 170
<211> 358
<212> DNA
<213> Homo sapiens

<400> 170
gaattcggcc ttcatggcct agatctgggt tgggttttct tttttaatta tccaaacagt 60
gggcagcttc ctccccccaca cccaagtatt tgcacaatat ttgtgcgggg tatgggggtg 120
ggtttttaaa tctcgtttct cttggacaag cacagggatc tcgttctcct catttttttgg 180
gggtgtgtgg ggacttctca ggtcgtgtcc ccagccttct ctgcagtccc ttctgccctg 240
ccgggcccgt cgggaggcgc catggctcgg atgaaccgcc cggccccggt ggaggacctg 300
aagaagtacg gggctaccac tgtggtgcgt gtgtgtgaag tgacctatga ctctcgag 358

<210> 171

<211> 415
<212> DNA
<213> Homo sapiens

<400> 171
gaattcggcc ttcatggcct acaagaagat ggtgtttctg cccctcaaat ggtcccttgc 60
aaccatgtca tttctacttt cctcactgtt ggctctctta actgtgtcca ctccttcatg 120
gtgtcagagc actgaagcat ctccaaaacg tagtgatggg acaccatttc cttggaataa 180
aatacgactt cctgagtacg tcatcccagt tcattatgat ctcttgatcc atgcaaacct 240
taccacgctg accttctggg gaaccacgaa agtagaaatc acagccagtc agcccaccag 300
caccatcatc ctgcatagtc accacctgca gatatctagg gccaccctca ggaagggagc 360
tggagagagg ctatcggaag aacccctgca ggtcctggaa caccccccgc tcgag 415

<210> 172
<211> 297
<212> DNA
<213> Homo sapiens

<400> 172
gaattcggcc ttcatggcct agcacgctgc cacacctagc tatgtatttc ttttttattg 60
ccaagtattc cattatatgg atagaccaca tttatttagc cattcatcag ttggtggaca 120
tttggaccac tcagtttttt acttccaagc ataaaagtct atgaagataa agtgattaaa 180
gatgtttttt aaatgtgatt ttttaaaaag tgacattatc agtataatct atttcagcat 240
atcaagtaat aattatcaat aaaaattcaa aaaccggtct ttttacagat actcgag 297

<210> 173
<211> 267
<212> DNA
<213> Homo sapiens

<400> 173
gaattcggcc ttcatggcct acactgaaag ctagaaaaca atagagaagt atcttcaggc 60
ttctgaggga aaattgtttc caaactagac caaacttatc aaatctaaga tagaataaag 120
acattttcag atatgcgagt ccttccaaaa tttatccctt atgtacttgc tctaaggaag 180
ctacttgatg tacaagcaaa gaaagtggaa gataatggaa tttgggaaat gggcacttca 240
acacaagatg acacgacctg cctcgag 267

<210> 174
<211> 288
<212> DNA
<213> Homo sapiens

<400> 174
gaattcggcc ttcatggcct aagcagaggc aaaagaatta accagctctt cagtcaagca 60
aatcctctac tcaccatgct tcctcctgcc attcatttct atctccttcc ccttgcatgc 120
atcctaatga aaagctgttt ggcttttaaa aatgatgcca cagaaatcct ttattcacat 180
gtggttaaac ctgttccagc acaccccagc agcaacagca cgttgaatca agccagaaat 240
ggaggcaggc atttcagtaa cactggactg gatcggaaaa cactcgag 288

<210> 175
<211> 430
<212> DNA
<213> Homo sapiens

<400> 175
gaattcggcc ttcatggcct aattcgttta tgagatggag tcacatgcca taggaaaaaa 60
gcctgaaaat tcagcagaca tgattgaaga aggggagctt atcctatctg tgaatatctt 120
gtaccctgtt atatttcata agcacaaaga acacaaacca taccaaacaa tgctggtgtt 180
gggcagtcaa aaactcacac aactgaggga ttcaattcga tgtgtcagtg acctccagat 240
tggtggtgaa ttcagcaaca ctcctgacca agcccctgag cacatcagca aagtaaggtg 300

atttcctccc ataaaacaaa aggaaataac aagctaagaa aatagcgatt actctagctg 360
gttcataaat gtcccagtaa atccttttct tctcctgcgg gattccatca aactaccaca 420
ctatctcgag 430

<210> 176
<211> 317
<212> DNA
<213> Homo sapiens

<400> 176
gaattcggcc ttcatggcct agagactctc agcaccctgc gatatgcaag ccgagctcag 60
cgggtcacca cccgaccaca ggccccccaag tctcctgtgg caaagcagcc ccagcgtttg 120
gagacagaga tgctgcagct ccaggaggag aaccgtcgcc tgcagttcca gctggaccaa 180
atggactgca aggcctcagg gctcagtgga gcccgggtgg cctgggccca gcggaacctg 240
tacgggatgc tacaggagtt catgctagag aatgagaggc tcaggaaaga aaagagccag 300
ctgcagaata gctcgag 317

<210> 177
<211> 349
<212> DNA
<213> Homo sapiens

<400> 177
gatgggactt aagttgaacg gcagatatat ttcactgatc ctcgcggtgc aaatagcgta 60
tctggtgcag gccgtgagag cagcgggcaa gtgcgatgcg gtcttcaagg gcttttcgga 120
ctgtttgctc aagctgggcg acagcatggc caactacccg cagggcctgg acgacaagac 180
gaacatcaag accgtgtgca catactggga ggatttccac agctgcacgg tcacagccct 240
tacggattgc caggaagggg cgaaagatat gtgggataaa ctgagaaaag aatccaaaaa 300
cctcaacatc caaggcagct tattcgaact ctgcggcagc tggctcgag 349

<210> 178
<211> 576
<212> DNA
<213> Homo sapiens

<400> 178
gaattcggcc ttcatggcct agtaaactct gaccagagat gacatctggt cccacaactc 60
atcaggtcta tgtacaatat ttcacatacc acccaataga taagataata ttaacagcaa 120
ccattctcct ttatcaattc cccctgctcc aatacaacca ccacacattg cattaatacc 180
ccaaacccat tcccaattta ttaaatatgg tgcaagctca tagacactta gaagaggcaa 240
atctagttgt gatgaagagt tcctagagct ctgggagcca agatggaggt tttccagtac 300
ctgcacatgt ggctcaggag gatgctgccc aggagctaat gagttgggag agcaaacatg 360
ggaggtagaa gtcagatggc ccagctcagg gagctatctc tctcagcatc tcagctttga 420
gactctgcca ccacctcttc ccagcccaag ctgctgccta aaccaggcat gttgaagggt 480
gagcagtggt tgccatgaag ccaagaccaa gagattgctg agactcccac tcccctccct 540
cagactctag gcctgtgaca agccacacta ctcgag 576

<210> 179
<211> 320
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (57)

<400> 179
gaattcggcc ttcatggcct agttccatgg gaaattcata gacacgggtt tttcttnacc 60
attctataag cgtatcttga acaaaccagt tggactcaag gatttagaat ctattgatcc 120
agaattttac aattctctca tctgggttaa ggaaaacaat attgaggaat gtgatttgga 180

aatgtacttc tccgttgaca aagaaattct aggtgaaatt aagagtcatg atctgaaacc 240
taatggtggc aatattcttg taacagaaga aaataaagag gaatacatca gaatggtagc 300
tgagtggagg ttgtctcgag 320

<210> 180
<211> 583
<212> DNA
<213> Homo sapiens

<400> 180
gaattcggcc ttcatggcct aactctgtcc aggtagaaat ggtgaggagg gggaagagaa 60
ttacatttcc agggtcagaa acttggcaac agttttccta gagtgactca gacacaccac 120
agtaacaact ctcgctgcaa ttttatttta atttgagaaa taaagatttc ctccaagcca 180
catgaggact ctggcaccca cccacaaagc aagacctgta tttataagcc gagggctcag 240
ggagcctaac tgcgggaccc gtcagggccc cgtgacccat ccccgtcccc accccccccct 300
ccaccgctgg gcccatcagt gtgtgttggg gggatgcttg gcagctgggg gtgaggagac 360
aacaaacctc gggaactgga gccagagctg cggcctgact gacgcctttt gatgctcacg 420
ggaaatttct gcccaggatc tcagccccag gctggttgtt tctacaaatc tctctcaaat 480
gtattatttt ggtgacaaaa atgaaggagc tttgtaaatt tttttaaaat tatgaatcat 540
atcaagtagt tgtttacatt tcttgaaaaa agagcaactc gag 583

<210> 181
<211> 280
<212> DNA
<213> Homo sapiens

<400> 181
gaattcggcc ttcatggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag 280

<210> 182
<211> 280
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (272)

<400> 182
gaattcggcc ttcatggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gntactcgag 280

<210> 183
<211> 280
<212> DNA
<213> Homo sapiens

<400> 183
gaattcggcc ttcatggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag 280

<210> 184
<211> 280
<212> DNA
<213> Homo sapiens

<400> 184
gaattcggcc ttcatggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag 280

<210> 185
<211> 280
<212> DNA
<213> Homo sapiens

<400> 185
gaattcggcc ttcatggcct acaagattgg caagatgctt atttttggtg ccatatttgg 60
ctgccttgac ccagtggcaa cactagctgc agttatgaca gagaagtctc cttttaccac 120
accaattggt cgaaaagatg aagcagatct tgcaaaatca gctttggcca tggcggattc 180
agaccacctg acgatctaca atgcatatct aggatggaag aaagcacgac aagaaggagg 240
ttatcgttct gaaatcacat actgccggag gctactcgag 280

<210> 186
<211> 379
<212> DNA
<213> Homo sapiens

<400> 186
gaattcggcc ttcatggcct agttatgcgt gaatttgacc ctggcattat gatgttagct 60
ggttattttt ctcgttagtt gatgcagttt cttcctggca tcaatggaat ttacaatttg 120
tcatgttttg cagtggctgg tatcagttgt tcctttctat gtttatagtg cttccttcag 180
gagctctttt agggcaggcc tggtggtgac aaaatctctg agcatttgct tttttgtgaa 240
ggatttttatt tctccttcac ttatgaagct tagtttggct ggatatgaaa ttctggtttg 300
aaaattattt tctttaagaa tgctgaatat tggcccccct aggccatgaa ggccgattga 360
attctagacc tgcctcgag 379

<210> 187
<211> 327
<212> DNA
<213> Homo sapiens

<400> 187
gaattcggcc ttcatggcct agctccactt tctctgaaaa tttattcata ttgttaatta 60
aatttgtttt tattatagaa ataatatatt gcatgatttg taaaaatgca gaggaacaga 120
atggcacaaa attatgtaac cctttctatc tccccttggt gtacctcctt aatcatactt 180
ctcagaacca ttgtcaataa tttgctggga gttcttctga tggttaccat cgtgactgat 240
agatttattt cccaggttca agcggttccc ctgcctcagc ctcccgagta tctgggacta 300
caggcatgca ccaccactca gctcgag 327

<210> 188
<211> 379
<212> DNA
<213> Mus musculus

<400> 188
gaattcggcc ttcatggcct aattatgaaa agtattcctt tatactgtaa gtagtttagg 60
aaactattaa tttttatgaa taatagaact tccttctgag gttttgattt aatcaagaag 120
aacctggaca ttttgttgct attatagtat gttctataat ttgaaagctg ccttacttca 180

tttatttgta atgtttttat tattacattt cctttttttac agtccagctg tatcttccct 240
cccagtcccc cctcacacag ttccatcccc tgtctccaag ataatggccc cttaccaggt 300
ctccccactc cctggggtgt caagtctctc aagggttagg tgcacatctt cttccactga 360
gaccagaaca aggctcgag 379

<210> 189
<211> 301
<212> DNA
<213> Mus musculus

<400> 189
gaattcggcc ttcatggcct acccttctct gaggatggac acttctcaca ctacaaagtc 60
ctgtttgctg attcttcttg tggccctact gtgtgcagaa agagctcagg gactggagtg 120
ttaccagtgc tatggagtcc catttgagac ttcttgccca tcaattacct gcccctaccc 180
tgatggagtc tgtgttactc aggaggcagc agttattgtg gattctcaaa caaggaaagt 240
aaagaacaat ctttgcttac ccatctgccc tcctaatatt gaaagtatgg agtgcctcga 300
g 301

<210> 190
<211> 317
<212> DNA
<213> Mus musculus

<400> 190
gaattcggcc ttcatggcct aaagaaacct ggataacatt gtcttgcaac agcctagaat 60
aggtagcaaa aggaaatcta agaaagatgt ttatacaatc tttgatgcag aggtggagag 120
cacaagtcca aagtcggaac aggattcggg aattctggat gtggaagacg aggaagatga 180
tgaagaggta cctggggctc aagacttggt ggatttctct cctgtgtatc ggtgtctaca 240
catatattct gtcctgggtg cccgtgaaac atttgagaat tactaccgaa aacagaggcg 300
aaaacaggcc cctcgag 317

<210> 191
<211> 295
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (215)

<220>
<221> unsure
<222> (222)

<220>
<221> unsure
<222> (233)

<220>
<221> unsure
<222> (237)

<220>
<221> unsure
<222> (241)

<220>
<221> unsure
<222> (245)..(246)

<220>
<221> unsure
<222> (249)..(250)

<220>
<221> unsure
<222> (253)

<400> 191
gaattcggcc ttcatggcct acacttggag atttctatgg gtggtttgct ttggtttggt 60
tcttttatca ttaaaagaag aatgggagcc gggcgtggtg gcgcacgcct ttagtcctag 120
cactcgggag gcagaggcag gcagatttct gagtttgaga ccagcttggt ctacaaagca 180
agttccagga cagccagggc tacacagaga aatcntgtct cnaaaaacaa ganaganaga 240
naganngann ganagagaga gagagagaga gagagagaga gagacacccc tcgag 295

<210> 192
<211> 307
<212> DNA
<213> Mus musculus

<400> 192
gaattcggcc ttcatgccta gggccctgca gtcccagctc tgtgcaaacc taaccccgag 60
caacaccatg aagctctgcg tgtctgccct ctctctcctc ttgctcgtgg ctgccttctg 120
tgctccaggg ttctcagcac caatgggctc tgaccctccc acttcctgct gtttctctta 180
cacctcccgg cagcttcaca gaagctttgt gatggattac tatgagacca gcagtctttg 240
ctccaagcca gctgtggtat tcctgaccaa aagaggcaga cagatctgtg ctaacccgtt 300
gctcgag 307

<210> 193
<211> 502
<212> DNA
<213> Mus musculus

<400> 193
gaattcggcc ttcatggtag gccatggtga aatcactggt aaggagaaaa catctgaaat 60
ggaattcaag tatctggtct tcattgtgct ttgtcaatac ctggacaata cgtttttctc 120
agagacagaa gcaattacaa cagagcagca atcactgtct actttaatca caccgtcgtt 180
atatgttaca actgattctc aaaacacagc agggaatgct ttgagtcaga caacaagatt 240
caagaacatt tcttctggac agcaagcatc acctgcccaa atcactcctg aacaagcaac 300
accagctgtt tatgtctctt caagcccact tacttataac attaccagac aagcagaatc 360
agcggtcaac aactccttgc ctcaaacatc accatctggg ttcactttga ccaatcagcc 420
atcaccttct acctataatt ctactggaca accaccaaaa catcttgtct atacttccac 480
acaacagcca ccaatactcg ag 502

<210> 194
<211> 427
<212> DNA
<213> Mus musculus

<400> 194
gaattcggcc ttcatggcct acaagaggag cctagggagt ggcagctctc gctgaccggc 60
gggtcccaga gacctgcccc caaggtgtcc cactgtgtgg ctaagggtgg gatagaaccc 120
gggctgggag agccgggtta tgggttccag tggtggttcc gccgcttcct tgcttcgctc 180
tgtcttacct cggcgttcag cctatttttc ctcgtaagaa ttggacactt ttccgtgccc 240
cttccatacc gcaggtggtg ttcgtagagg ctctcacgct tttcaaaagg cgtctcatct 300
aagatttgct agaaccaacc tgactaaagg agtcaccgtc ataccccccct tgcacctgga 360
gtaaatctga ctgtccgaag gacgaaggac cggtctgtga gcacttgtgc taaggtggac 420
gctcgag 427

<210> 195

<211> 197
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (28)

<400> 195
gaattcggcc ttcatggcct acaagttnac agtgcacacc aagaccacac tgtccacatt 60
tcagagccca gagttttctg ttacaaggca acatgaagac tttgtgtggc tgcatgacac 120
tcttactgaa acaacggatt atgctggcct tattatccct cctgctccta caaagccaga 180
ctttgatggc cctcgag 197

<210> 196
<211> 483
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (49)

<400> 196
gaattcggcc ttgaaaagaa tagacctggt ttgtgaatta tggcctggnt ttcacttata 60
ctctctctcc tggctctcag ctcaggggcc atttcccagg ctgttgtgac tcaggaatct 120
gcactcacca catcacctgg tgaaacagtc acactcactt gtcgctcaag tactggggct 180
gttacaacta gtaactatgc caactgggtc caagaaaaac cagatcattt attcactggt 240
ctaataggtg gtaccaacaa ccgagctcca ggtgttcctg ccagattctc aggctccctg 300
attggagaca aggctgccct caccatcaca ggggcacaga ctgaggatga ggcaatatat 360
ttctgtgctc tatggtacag caaccattgg gtgttcggtg gaggaaccaa actgactgtc 420
ctaggccagc ccaagtcttc gccatcagtc accctgtttc caccttcctc tgaagagctc 480
gag 483

<210> 197
<211> 364
<212> DNA
<213> Mus musculus

<400> 197
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tgtcccagcc tcccagggcc tgcagtgcat gcagtgtgag agtaaccaga gctgcctggt 120
agaggagtgt gctctgggcc aggacctctg caggactacc gtgcttcggg aatggcaaga 180
tgatagagag ctggaggtgg tgacaagagg ctgtgcccac agcgaaaaga ccaacaggac 240
catgagttac cgcatgggct ccatgatcat cagcctgaca gagaccgtgt gcgccacaaa 300
cctctgcaac aggcccagac ccggagcccg aggccgtgct ttcccccagg gccgttacct 360
cgag 364

<210> 198
<211> 464
<212> DNA
<213> Mus musculus

<400> 198
gaattcggcc ttcatggaat tatggcctgg atttcactta tactctctct cctggctctc 60
agctcagggg ccatttccca ggctgttgtg actcaggaat ctgcactcac cacatcacct 120
ggtgaaacag tcacactcac ttgtcgctca agtactgggg ctgttacaac tagtaactat 180
gccaactggt ccaagaaaaa ccagatcatt tattcactgg tctaataggt ggtaccaaca 240
accgagctcc aggtgttcct gccagattct caggctccct gattggagac aaggctgccc 300
tcaccatcac aggggcacag actgaggatg aggcaatata tttctgtgct ctatggtaca 360

gcaaccattg ggtgttcggt ggaggaacca aactgactgt cctaggccag cccaagtctt 420
cgccatcagt caccctgttt ccaccttcct ctgaagagct cgag 464

<210> 199
<211> 316
<212> DNA
<213> Mus musculus

<400> 199
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gattatacac cccttaactc ttaatttggt accatattga atggctctta tctgttctgt 120
tttaatcttt ttctcctttc tttgctgggc tttgacagtc ccatgtgaga catcctcgct 180
gcaccccagt gtctctgact ctcttccatt ttccatcctt tttgtttcca tgctttcaac 240
tgacagtgct ccttattccc atgcttctga ctcctcactc ccgtgctccc aaccgcctgt 300
acccgcttgt ctcgag 316

<210> 200
<211> 367
<212> DNA
<213> Mus musculus

<400> 200
gaattcggcc ttcatggcct ataggccatg aaggccggcc ttcatggcct acagagagca 60
acttagtgac tgaattctca ggacatagtc tttggcctcc atttgctcct ctccgcagag 120
tttgggtctc tcagttggtg tctgaagatg tgagaacaat tttagggtgc agagtttgga 180
ggaatttata agaaaacact gtctttgctc tgcttgtcat tgtagtcctt ccttgacttc 240
tgcactgggt tcattcggaa cctctatttc gtacatggcc ctgtttctcc atccttatca 300
cataggcacc tcagcagaag tgctatgaca taggattaca gcaacgatgg cctcatcaat 360
cctcgag 367

<210> 201
<211> 438
<212> DNA
<213> Mus musculus

<400> 201
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ctgacagacc tttccactgt acctgcagcc agcccttctc caaggatgga cacttctcac 120
gcgataaagt cctgtgtgct gatccttctt gtgaccctac tgtgtgcaga aagagctcag 180
ggactggagt gttaccagtg ctatggagtc ccatttgaga cttcttgccc atcatttacc 240
tgcccctacc ctgatggatt ctgtgttgct caggaggaag aatttattgc aaactctcaa 300
agaaagaaag taaagagccg ttcttgccat cctttctgcc ctgatgaaat tgaaaagaag 360
tttatcctgg atcctaacac caagatgaat atttcctgtt gccaggaaga cctctgcaat 420
gcagcagtcc cactcgag 438

<210> 202
<211> 321
<212> DNA
<213> Mus musculus

<400> 202
gaattcggcc tcatggccta caaagtagag gaactgctaa agaacccccct gaagattcta 60
gtgctgatta actgcctggg catgtacgac tggtccctgg ccaacaaatg cgtcctccac 120
atgttggttt ttggaaccac agttttcgtt tctggttctg agaagcattt caagtacctt 180
gagaagatct atagcctgga gatttttggc tgttttgctc tcaccgaact gagtcatggg 240
agtaatacca aggccatgcg aacgacagct cactatgatc ctgatactca ggaattcatc 300
ttacattccc cggatctcga g 321

<210> 203
<211> 307

<212> DNA
<213> Mus musculus

<400> 203
gaattcggcc ttcatggcct acaaaattgg caagatgctc attttcggag ccatatttgg 60
ctgtctcgaa ccagtggcaa cactggcagc cgtgatgaca gagaagtctc cattcatcac 120
accaattggt cgaaaggatg aagcggacct tgcaaagtcg tctttggctg tggccgactc 180
ggaccacctc acgatctaca atgcttatct agggtggaag aaagcccagc aagaaggagg 240
cttccgctct gagatctcat attgccagag gaacttccta aacagaacgt cactgttgac 300
actcgag 307

<210> 204
<211> 278
<212> DNA
<213> Homo sapiens

<400> 204
gaattcggcc ttcatggcct aggacaactg gtaaaacttg aatggggtct gagaattagc 60
tggtagtaat gtatcagtgt taacatttta attttaatag ttttatattg tggttatata 120
ggagattatc ctggttcata ggaaatacaa agtttcaagg ggttgggact atcatatctg 180
caacttaatc ttgtgaaagg aaagtaagtc ttgggacccc aaaatcatta aactaaaggg 240
ataagtcaag ctggaaactg cttcggtcaa acctcgag 278

<210> 205
<211> 436
<212> DNA
<213> Homo sapiens

<400> 205
gaattcggcc ttcatggcct acgaacagga gagactaccg gcgaagagga aatctttcct 60
gaaggaggag actgctgatg gataaatcct gggaaaaaat cagccaagtt cttcaagtct 120
ataacgtggc acctgatcct tgacctagct tgctgacatc ttttgaaagt gggtgagttc 180
tgcaaggtga agatcaagca ccagcagatt tggtgactat tgagggccta ttcctggttc 240
atagatgtca ccttctggct gtttcctcac atggtggatg gagcaagcta gccctctggg 300
gtctctttta taaagtctgg ccgggacctt caacaatatc agagtcaggc taagcaactc 360
tttcgaaagt tgaatgaaca gtcccctacc agatgtacct tggaagcagg agccatgact 420
tttcactact ctcgag 436

<210> 206
<211> 467
<212> DNA
<213> Homo sapiens

<400> 206
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ggatcatttg agcccaggag tttgagacca acctgggcaa aagggcaaga ctcagtctct 120
gccaaaaaaa aaaaaaatta gttgggcatg gtgctgcaca cttacattcc cagctactca 180
ggaggctaag gcaggagaat cccttgagcc ctggaatttg aggcagcagt gagctatgat 240
tgcaacactg cactccagcc tgggcaacaa agcgagtccc tgtctcttaa aaaaataata 300
acagaagtcc tagaaaagtt tgtgtgttga tttactttta cattaaaagt atatggcatg 360
ttgagcagcg taaatataga aaagtgtagg gaagactgag caggaagtac tcctttggga 420
ctgaaagacc tcaggaagtc ttattccttt gatggcacaa tctcgag 467

<210> 207
<211> 260
<212> DNA
<213> Homo sapiens

<400> 207
gaattcggcc ttcatggcct agttttataa gccaattttt ggagtaaaaa gtgaagcatt 60

tgacttttca ttttcagaat ttgttccttt attgggcagc aaacctcagc ctcaatatgc 120
atatttcttt gtatttcttt tctattttgg gggacagtgt ctcattctgt cacccaggct 180
ggagtgcagt gacacgatca tggctcactg aaacctcaac ttccctggct ctagtaatcc 240
tcccacctcg gcctctcgag 260

<210> 208
<211> 362
<212> DNA
<213> Homo sapiens

<400> 208
gaattcggcc ttcatggcct agttccccca caaattcatg cagatacaat tttggagagg 60
atttctctcc agctctagat ataggcctgt aggagcctgg tcattctgta tttcccttac 120
aaagaattct cgtaggtccc agaagtacct ggatgcttca tgaaatttta attggacatt 180
tcttaaaata tcaattcatt aaatcgtgtg tgcttattta catggtggat agttctacaa 240
tatggtcccc ttttctgccc ttgaaaacca tctttgtggc cgggcacggt ggctcatgcc 300
tgtaatccca acactttggg aggctgaggt gggtggatca cctggggtta ggagttctcg 360
ag 362

<210> 209
<211> 328
<212> DNA
<213> Homo sapiens

<400> 209
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ttatgacaaa ctttcagaga ctgttgattt ggtgagacag accggccatc agtgtggcat 120
gtcagagaag gcaattgaaa aatttatcag acagctgctg gaaaagaatg aacctcagag 180
accccccccg cagtatcctc tccttatagt tgtgtataag gttctcgcaa ccttgggatt 240
aatcttgctc actgcctact ttgtgattca acctttcagc ccattagcac ctgagccagt 300
gctttctgga gctcacacgg cactcgag 328

<210> 210
<211> 487
<212> DNA
<213> Homo sapiens

<400> 210
gatttgcaca gttcttgcca gaataaatgc cattatctgt atgtttcagg gagttcccca 60
atttgatcat ttttgtgtgt gtgtggtgtg tgtgtgagag agagagatac tgcagtaaaa 120
catttctaaa ggatgaaagc tcttgtatgg catagatatg aattccttcc tctggtaata 180
attaggttat tcccagaagc acagtgtcat tctttaaata aaagctttcc tgtttaaagc 240
ttttcaaagg agcagaccac cttgaagatt cccccctaggg ttgatatgtg tctaattcat 300
tttataaaaa ttattcttgt cttcatttta aagctttggc tatatagtca gaaatgtcct 360
aaataacaaa ctattttgta tttaatttag ggaagactaa agggaagaaa aatgaaaact 420
cagtctttat gtaagctcca aggatattag ggcttaaagg gcttttctag ttttatgaga 480
tctcgag 487

<210> 211
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (108)

<220>
<221> unsure
<222> (121)

<220>
<221> unsure
<222> (137)

<220>
<221> unsure
<222> (357)

<400> 211
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acacacacac acacacacac acacacagat tctgaattat acatgganac acaaactaga 120
ntggccaaaa caatttngag aaagaacaat aatttggagt actcctatta tctaatgtta 180
agaatgacta taaagctaca gtaattagtg ctatattgac aaaaggctag ccacaaacct 240
atgaaacaga aacaagtcca gagatacacc cataaaaata tggtaaactg atacttgaca 300
tgtccaaaaa caatgaatgc aaaaaggata atcttttcaa caaatgggat tggaacnatt 360
ggacattcac atactctccc ccccctcgag 390

<210> 212
<211> 322
<212> DNA
<213> Homo sapiens

<400> 212
gaattcggcc ttcatggcct aaattggccg ggtgtggtgg cgcatgcctg tggtcccagc 60
tacttgggag gctgaggtgg gaggatggcc tgggcccagg aggtggaggt tgcagtgagc 120
cttgatagca ccactgcact ccagcctggg tgacggagcg agaccctgtc tcaaaacaga 180
caaacaagca aaaaataggt taaagtctgg atttcactga ttttcttgct taataagttt 240
tttaaaacca cgatgctgca atttttcccc tctcaagctt cttgaaaatg tgtgatttac 300
cctttttat ctattactcg ag 322

<210> 213
<211> 290
<212> DNA
<213> Homo sapiens

<400> 213
gaattcggcc ttcatggcct aagaaaactt tcagccagaa atagccaaag tcactcttgg 60
tcatcacacc aaactttgat tctcaccaca acacacattt cactctttga ttctcttttt 120
tcccagttag ttgttggctg aatgatcagt ctatttattt tatatatatc taggcatcta 180
catatccatt catctacttc tctttctatc cacctactta tgtatccatc catccatcca 240
tccatccatc cattcatcca ttcaccattg aattctagac cagcctcgag 290

<210> 214
<211> 216
<212> DNA
<213> Homo sapiens

<400> 214
tgaggagcat ggtcgccaat cccacagctc ctcctccttt gccagtggca ccctccagga 60
cacgtggagg ttgctagacc tgggatccag cccttctggt gtcacctccc agggtgactc 120
aactccagag ctcccagctc ctccagcagc cgacaggagg cccgtcaaga tgcaggcagg 180
tattgccacc ccagggatga agacagcacg ctcgag 216

<210> 215
<211> 442
<212> DNA
<213> Homo sapiens

<400> 215
gaattcggcc ttcatggcct actcttagat agaaaactgg accagcctct acggatgtcg 60

atgctctgtt tcttggtttt gcttctctgt aaatctgagg gagaagacag gaaggacctg 120
gggtgcagcc cttctttgcc tgtctcatag gagatcctca cctcactttg tgaaaaccca 180
tgctgtctgt aatgatccca aaagctgctg caaaatacct caatataaaa gacatgttaa 240
cctggacgtg gtggctcacg cctgtaatcc cagcactttg agaggccgtg gggggtggat 300
cacttctttg gtcacctgaa gtccaggact tcaagaccag cctgggcaac acggcaaaac 360
cccatctcta ccaaaaaata caaaaattat tcaggcatgg tggtatatgc atatagtccc 420
agctactagg acgaggctcg ag 442

<210> 216
<211> 313
<212> DNA
<213> Homo sapiens

<400> 216
gaattcggcc ttcatggcct actgaggcag gagaatggcg tgaacccagg aggcggggct 60
tgcagtgagc cgagattgcg cgactgtact ctagcctggg tgacagagcg tgactccatc 120
tcaaaaaaaa aaaataaaat aaaaaactaa atgttaaaag gagatttctt ttaatagaga 180
aagtagtcgt cttttttgt tattcttttt ttcttaatat gctttaagtt agtccataga 240
atggactttg ttcttttggg ggttaatagc taaaatattt aaagcaatga aactgaaagg 300
gtcagtactc gag 313

<210> 217
<211> 284
<212> DNA
<213> Homo sapiens

<400> 217
gaattcggcc ttcatggcct atgaattaac agcttctcta tttgatattt gaaattcttc 60
tgtaagcctg tctgagtgta tgtggaaacg attgtcaaat ctaaaatatc tatatattaa 120
aaagtaggaa attgtcctag cttaccctaa atttcaaatc tgagttgatt ttgtgatttt 180
attgcttata acagagaact catatttgac atattttttt cattgatgtg ttcctggtag 240
attttcacga atgagctggc aggtctaatc ggggaggcct cgag 284

<210> 218
<211> 326
<212> DNA
<213> Homo sapiens

<400> 218
gaattcggcc ttcatggcct agaacctggg ccgcatgtat ctcttctatg gcaacaagac 60
ctcggtgcag ttccagaatt tctcacccac tgtggttcac ccgggagacc tccagactca 120
gctggctgtg cagaccaagc gcgtggcggc gcaggtggac ggcggcgcgc aggtgcagca 180
ggtgctcaat atcgagtgcc tgcgggactt cctgacgccc ccgctgctgt ccgtgcgctt 240
ccggtacggt ggcgcccccc aggccctcac cctgaagctc ccagtgacca tcaacaagtt 300
cttccagccc accgagatgg aggcag 326

<210> 219
<211> 530
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (26)

<220>
<221> unsure
<222> (379)

<220>

<221> unsure
<222> (414)

<220>
<221> unsure
<222> (429)

<220>
<221> unsure
<222> (437)

<400> 219
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tgctgattca agttctactt ctggtgaaag ttctagtgac acaagcagca acttctctca 120
ggtctagtac agtcagagat cagttccttc tgtataattt acagagaatt tttaaacttg 180
cggggaaaga tgtacgacct agattgtata gggagaaggg agcgtcttag ctgcatagtt 240
ctaatttgta taagcaccat gccatgtttt tcattgtttg ccctttatat atgaaaatac 300
ttacacttaa aagcattgtt gtttagtttc aaaatctcaa cttaatacca ttcacaaatt 360
taataagggc gttgtcatna cataaaacta attgggaaat aatcccatct atcnggacag 420
ttctctggna tagtaanaca tgcgttctct aagcttctac cttttaaaca gctttgttct 480
aattactccc tttgtacctt tccatttctc agtaaaatta catactcgag 530

<210> 220
<211> 507
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (360)

<400> 220
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ctctatgtgg cgctcaagga gctgggcgag gaacgcaggg tgagcctgga acagcagtac 120
tggctctacc agctcagccg ccaggtggat gagctggaac actggatagc cgagaaggag 180
gtggtagctg gctccccaga gctgggccag gacttcgaac acgtgtcggt gctacaggag 240
aaattctcag agtttgccag tgagacagga accgcagggc gggagcggct ggcggcggtc 300
aaccagatgg tggacgagct gattgagtgt ggtcacacag cagcggccac catggctgan 360
tggaaggacg ggctgaacga ggcctgggct gagctgctgg aactcatggg cacccgggcc 420
cagctgctcg ctgcctctcg ggagctgcat aagttcttca gcgatgcccg ggagcttcaa 480
gggcagattg aggagaggcg actcgag 507

<210> 221
<211> 382
<212> DNA
<213> Mus musculus

<400> 221
gaattcggcc aaagaggcct atcgagccct ggccaactcc gacggtgcgg gaagtagtcc 60
tagttcaagc cccgtggacg tccggtggcg gtctcgggcc ccagccagcc caggggttag 120
gtaggggcag ctcagggggc tctgggcccg accaggaaag gagccgtgga ggctgacgtg 180
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tcagctgtgc aggtcccaca gacctgttca tcctccacac ccgctgcacc aggctggcgt 300
ttaaggggag aaggtccaga gagggtgagt gtgtggagag gatgcccaaa ctgcagggtt 360
ttgagttttg gggccgctcg ag 382

<210> 222
<211> 194
<212> DNA
<213> Mus musculus

<400> 222
gaattcggcc aaagaggcct aggtaaagtg ggcagaaaaa acagagagca ggaaatgttt 60
tatttatcct tttttggttt gtttggtttg gttttgtgtt ttcaagacag ggtttctctg 120
ggtaaccttg gctgtcctga aactcactct gtagaccagg ctggctttga actcacagat 180
cccactgtct cgag 194

<210> 223
<211> 477
<212> DNA
<213> Mus musculus

<400> 223
gaattcggcc aaagaggcct agacacggtg gcttccgaca tgatggttct cctgaaatcc 60
ttctttgatt gccataaaga attccagacg gttccattct acattttctc agaatcctac 120
ggaggaaaga tggctgctgg catcagtgta gaactttaca aggctgttca gcaagggacc 180
attaagtgca acttttctgg ggttgctttg ggtgactcct ggatctcccc cgtggattca 240
gtgctgtcct ggggacctta cctgtatagt atgtctctcc ttgataatca aggcttggcc 300
gaggtgtccg acattgcaga gcaagtcctc gatgctgtaa acaagggctt ctacaaggag 360
gccactcagc tgtgggggaa agcagaaatg atcattgaaa agaacaccga cggggtaaac 420
ttctataaca tcttaactaa aagcagcccg gagaaagcta tggaatcgag cctcgag 477

<210> 224
<211> 389
<212> DNA
<213> Mus musculus

<400> 224
gaattcggcc aaagaggcct acggtgaagc aagagctgcg tgggccctga gtgggggagg 60
gacggcagcc cttggagttc cacccagtgc ctctgccggc aggagaggag ggggagtatg 120
tcctggcact gaagcaagag ctgcgcgggg ccatgaggca gctcccctac ttcatccggc 180
cagccgtccc caagagagat gtggaacgtt actcagacaa gtatcagatg tctgggccta 240
ttgacaacgc catcgattgg aaccctgatt ggcggcgact ccccagtgag ctcaagattc 300
gagtgcggaa agtacagaag gagcggacca ccattatcct tcccaagagg ccccctaaga 360
gcacagacga taaggaggag taactcgag 389

<210> 225
<211> 423
<212> DNA
<213> Mus musculus

<400> 225
gaattcggcc aaagaggcct attatagagt atgtggtttg ttgtcaaatg cttgaggctg 60
ttgctgttag aattaacaga ggcactaaaa ttggaaggaa aaaaagcttt atttgaaaaa 120
aatggagatg ggaataatac agtggagatc gtgaatacat ggactcagag ctgtgttgat 180
gggagatcta ataattggaa ttctgaaatg tgtggtcact tttccttcct gctcttgggg 240
atgatttaca ttttaaagcc aaggaggcaa aagagaaaga aacagcaaag tgtggtgaag 300
tggaactcaa aacatttata ttttaatttt catagtgccc tgtatttgtg ggtctctctc 360
ttcaagccat ctgctgcctc tgaaggcatt tccacccagg cttcttgtcc ccaccaactc 420
gag 423

<210> 226
<211> 379
<212> DNA
<213> Mus musculus

<400> 226
gaattcggcc aaagaggcct agagacggtg gacaagcgcg agaaactggc ggagggcgcg 60
accgtggtca ttgagcattg tacgagctga cgcgtgtacg gccgccatgc tgctgccttg 120
agccaggctc tgcaactgga ggccccagag ctacctgtgc aagtgaaccc gtccaaaccg 180
cggaggggca gcttcgaggt gacgctgctg cgctcggaca acagccgtgt tgaactctgg 240

actggtatta agaagggccc tccacgaaag ctcaaatttc ctgagcctca agaggtggtt 300
gaagaattga agaagtacct ttcataaaga ggttgggaaa gagtcctcat gttgagcttt 360
cagtccctgg aggctcgag 379

<210> 227
<211> 113
<212> DNA
<213> Mus musculus

<400> 227
gaattcggcc aaagaggccg tcggggaaaa aaagagcgag agcgccagct atcctgaggg 60
aaacttcgga gggaaccatc tactagatgg ttccctccca agtttccctc gag 113

<210> 228
<211> 379
<212> DNA
<213> Mus musculus

<400> 228
gaattcggcc aaagaggcct atttgcacta agtctagaga gttctagtca atcatagtta 60
gagtagatta gtttatacat taggtcaata ttcagttatc agtgagggat cttaggaagg 120
ggagctctac agattgtacc tgttactagt gattttggca ggaaggttaa actattcata 180
taagctttta attatttaat gaagattaat ttctggtatt agtttgattc ttcttccaaa 240
tttattatta aagccagtta ggaaggttta gggattacta ttattgaatc tcatactgtt 300
atattacaac atgttagcag atctgttttt aaattttgtt tgtttttttg cttttgtagg 360
ttgccatgga gtcctcgag 379

<210> 229
<211> 410
<212> DNA
<213> Mus musculus

<400> 229
gaattcggcc aaagaggcct acaaaaggac ttttgataac agtttcaaga ttgtcagcat 60
tttgcattgg acttgagctg aggtgctttt aaaatcctaa cgactagcat tggcagctga 120
cccaggtcta cacagaagtg cattcagtga actaggaaga caggagcggc agacaggagt 180
cccgaagcca gtttggtgaa gctaggaagg actgaggagc cagcagcagc agtgcatggt 240
gaagatagcc caggaaagag tgcggttcgg tggaggaagc taggaagaag gagccatacg 300
gatgtggtgg tgaagctggg aaagggttcc aggatggtgg agcgagagcg agttggtgat 360
gaagctagct ggcggcttgg cttgtcaact gcgcggaaga ggtactcgag 410

<210> 230
<211> 367
<212> DNA
<213> Mus musculus

<400> 230
gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggcctaacc 60
tgccttgcca ccctggccac agtgctgctg gctctggcca gaagaagccc ccaggcacag 120
atgcagatca agcaacagaa ttctggggtg aggctgccag gcacctttta agcaaagcct 180
acaggctgtg gacatcccca tctacagaaa gtccactaca accaagagga caagctccct 240
cctgggcagg ctaaggaact gccagggctt caagggtgtc agtgtttcgt actctcagga 300
tcctatctag ttcagtccca gccctcagtg ggctaggtca gtgtggctgg cgctcagtgt 360
tctcgag 367

<210> 231
<211> 393
<212> DNA
<213> Mus musculus

<400> 231
gaattcggcc aaagaggcct aggatgtggg ggtgcggtcg gcgcaggctt cctaccttgt 60
ggagtccgtc cgtgcgtccg tgcgtcccgt gggcatggca gagacatctt gaccgcggcg 120
tccgcttctg cgcgcgtggg tgacgtcgct gggggcggcg gccgtgactg gcggacgctg 180
aacagagaaa cacgggttag actttccatt cacgcccaca gaaaaactta caacaaaatt 240
ataaattaaa ttaaattaag aattaaatta caaataagga caagaataat tagggcagaa 300
accatagctg cggctaaaag agaaaccctg tctccaaaat caaaaattaa aattaaaaaa 360
taaacccaaa tgaaaataag aataatactc gag 393

<210> 232
<211> 650
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (286)

<400> 232
gaattcggcc aaagaggcct actcagaaaa cacagagctt tagctccgcc aaaatgaaac 60
actcattaaa cgcacttctc attttcctca tcataacatc tgcgtggggt gggagcaaag 120
gcccgctgga tcagctagag aaaggagggg aaactgctca gtctgcagat ccccagtggg 180
agcagttaaa taacaaaaac ctgagcatgc ctcttctccc tgccgacttc cacaaggaaa 240
acaccgtcac caacgactgg attccagagg gggggaggac gacgantatc tggacctgga 300
gaagatattc agtgaagacg acgactaaca tcgacatcgt cgacagtctg tcagtttccc 360
cgacagactc tgatgtgagt gctgggaaca tcctccagct ttttcatggc aagagccgga 420
tccagcgtct taacatcctc aacgccaagt tcgctttcaa cctctaccga gtgctgaaag 480
accaggtcaa cactttcgat aacatcttca tagcacccgt tggcatttct actgcgatgg 540
gtatgatttc cttaggtctg aagggagaga cccatgaaca agtgcactcg attttgcatt 600
ttaaagactt tgttaatgcc agcagcaagt atgaaatcac gaccctcgag 650

<210> 233
<211> 465
<212> DNA
<213> Mus musculus

<400> 233
gaattcggcc aaagaggcct aaagaaacaa gaggctggag attgtcaaat tcagtatccc 60
agttggctct tgattcttgg tgaaaccatc cctcagctcc tagagggaga ttgttagatc 120
atgaaactaa ttaccatcct tttcctctgc tccaggctgc tactaagttt aacccaggaa 180
tcacagtccg aggaaattga ctgcaatgac aaggatttat ttaaagctgt ggatgctgct 240
ctgaagaaat ataacagtca aaaccaaagt aacaaccagt ttgtattgta ccgcataact 300
gaagccacta agacggttgg ctctgacacg ttttattcct tcaagtacga aatcaaggag 360
ggggattgtc ctgttcaaag tggcaaaacc tggcaggact gtgagtacaa ggatgctgca 420
aaagcagcca ctggagaatg cacggcaacc gtggggttac tcgag 465

<210> 234
<211> 304
<212> DNA
<213> Mus musculus

<400> 234
gaattcggcc aagtaaaagc agggagaact ctttatctga gccatgttcc tatctcctgg 60
aacgcttcta tgcacctttc tcctccccac actttttctg agggtgacag ccagagaacc 120
agtctttgta gagaaaaacc cttttgtaca gcatatagta gaatctcaat acatggaatt 180
aagagaaaga cttaggaagg aaaccattcc caccaatgga agaaatcaac ttgttcacag 240
aggatccacc aaacgaagaa aattcatata cagtcagcta ccgacagaca caccagagct 300
cgag 304

<210> 235

<211> 570
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (32)

<220>
<221> unsure
<222> (168)

<400> 235
gaattcggcc aaagaggcct acgagagagg angtgctgca agactctctg gtagaaaaat 60
gaagagggtc ctggtactac tgcttgctgt ggcatttgga catgctttag agagagccgg 120
gattatgaaa agaataaagt ctgcaaggaa ttctcccatc tgggaaanga ggacttcaca 180
tctctgtcac tagtcctgta cagtagaaaa tttcccagtg gcacgtttga acaggtcagc 240
caacttgtga aggaagttgt ctccttgacc gaagcctgct gtgcggaagg ggctgacccct 300
gactgctatg acaccaggac ctcagcactg tctgccaagt cctgtgaaag taattctcca 360
ttccccgttc acccaggcac tgctgagtgc tgcaccaaag agggcctgga acgaaagctc 420
tgcatggctg ctctgaaaca ccagccacag gaattcccta cctacgtgga acccacaaat 480
gatgaaatct gtgaggcgtt caggaaagat ccaaaggaat atgctaatca atttatgtgg 540
gaatattcca ctaattacgg acgactcgag 570

<210> 236
<211> 702
<212> DNA
<213> Mus musculus

<400> 236
gaattcggcc aaagaggcct agaagaacat ttctagggaa taatacaaga agatttagga 60
atcattgaag ttataaatct ttggaatgag caaactcaga atggtgctac ttgaagactc 120
tggatctgct gacttcagaa gacattttgt caacctgagt cccttcacca ttactgtggt 180
cttacttctc agtgcctgtt ttgtcaccag ttctcttgga ggaacagaca aggagctgag 240
gctagtggat ggtgaaaaca agtgtagcgg gagagtggaa gtgaaagtcc aggaggagtg 300
gggaacggtg tgtaataatg gctggagcat ggaagcggtc tctgtgattt gtaaccagct 360
gggatgtcca actgctatca aagcccctgg atgggctaat tccagtgcag gttctggacg 420
catttggatg gatcatgttt cttgtcgtgg gaatgagtca gctctttggg attgcaaaca 480
tgatggatgg ggaaagcata gtaactgtac tcaccaacaa gatgctggag tgacctgctc 540
agatggatcc aatttggaaa tgaggctgac gcgtggaggg aatatgtgtt ctggaagaat 600
agagatcaaa ttccaaggac ggtggggaca gtgtgtgatg ataacttcaa catagatcat 660
gcatctgtca tttgtagaca acttgaatgt ggacggctcg ag 702

<210> 237
<211> 317
<212> DNA
<213> Mus musculus

<400> 237
gaattcggcc aaagaggcct aacggcaact ttacttaaga tttcctgtag tgtgtccgga 60
gacatacttt atatatagca attatcatgt ttctaactgt gcaatggtat gatttatgta 120
aagattcaaa atgattttgt ggaaaattaa ttagcaaaga tggataagtg tagatttgaa 180
ttcttatgta tcagtaattt atgatcttat ttctctgtta ttgtgaatgt tggtttttatt 240
aaagagttat tgaaactgtc ataaaccatt ttataggtct ttaataaaat taaagatgaa 300
atcagcaaag tctcgag 317

<210> 238
<211> 341
<212> DNA
<213> Mus musculus

<400> 238
gaattcggcc aaagaggcct acaaagaaat acggattaaa accgccgaca ttataaacac 60
aggggaaaca gactgactct tttcaaagaa gtttaccccc tcttcaactc aaccctgaag 120
acactgtcat aaattgttga acggtggaac ttagtagtcc ctttgtgatg ttgtcattca 180
ttacatctgt ttcatgttta ggtgtagtgg gcgtggctgt tgaaggaagt ttgcagtctt 240
gcagctttta ttccctgtgc aacaaaagct tagaacctgt taaagggata ttaaaacaaa 300
gttgtagaat acaaacagta attggccatg cagatctcga g 341

<210> 239
<211> 409
<212> DNA
<213> Mus musculus

<400> 239
gaattcggcc aaagaggcct acgaggtccc gggcttaagt gatcctccca cctcagcctc 60
ctgggtagct gagatcacag gcgcgcgcca ccacaccaag ctaatttttt gatcgtctgt 120
agagacgtgt tctcacaata tggcccaggc tggtgttgaa ctctcggagc tcttagatgt 180
tgattcagac tccttcatag tataataggc ttaaaatgga aagactgtgc gtacaggaat 240
ttatcctaag gaagtaatgt gtcagatttg cgtatataaa tttaatatca gttattaaga 300
attttttta aaattaaata ttcaagtttt gggaatctgc taattctgtt gtgaaagtgg 360
aaatctatac agccacttaa aacagtatcg taggtgaaga gaactcgag 409

<210> 240
<211> 190
<212> DNA
<213> Mus musculus

<400> 240
gaattcggcc aaagaggcct acggcttgta ttttacaacg aaagcttata tatttgaagg 60
tgcccttgga atgtctaata gagacagcta tttttatgcc gcaattgttg ctgttgttgc 120
tgttcatgtg gttctggccc tgtttgtcta tgtggcctgg aatgaaggct cacgacagtg 180
gcggctcgag 190

<210> 241
<211> 188
<212> DNA
<213> Mus musculus

<400> 241
gaattcggcc aaagaggcct agtgtatctg tgtctgtgtc tgtgtgtttg gggtagacag 60
accgacaggt ggacagttca gcagagtcca aaggccacac tgggaaagaa atgaatttac 120
ttttagtgct tctttctctc ttcctccctg ccttccccag tgcaagagaa gacgacaggc 180
cactcgag 188

<210> 242
<211> 110
<212> DNA
<213> Mus musculus

<400> 242
gaattcggcc aaagaggcct acacagaaca tgtttgggat gtggaagcct atggttttct 60
tggctattgc agcagtagct ctgtatgtgt tacccaatat gcgactcgag 110

<210> 243
<211> 282
<212> DNA
<213> Mus musculus

<400> 243
gatcttctac tactagtgag cttgatttta aaacttgttt gtgcagtatt gttctgatct 60

ctccctgaaa atataataac ggagaaatac ctagctggag tcttctggaa ggggaatggc 120
ttatgatctg tggctattat gtacatggtg tctttggctg tggctctttt ctcctgggtg 180
gctgtaaatc cttccagctc ggccaggagt ggcaaagctc tgagcaccga tgctgctgcc 240
tgtcagggca gacttccctg tcctcacccc ccacatctcg ag 282

<210> 244
<211> 372
<212> DNA
<213> Mus musculus

<400> 244
gaattcggcc aaagaggcct acttccagcg tgtgttacct cacctgtctt taatagcctt 60
actgaattat aaggctatat tacaaactac catattggta aaacattcag caagactcct 120
tgttaataat aattatatcc agtttctaat tattatccaa attctaatta cccctaacgt 180
tgaaacataa aaggtaagca ctagtaaagt cctggctttc tcctttcagt tgtgatagcc 240
caatcctttg aggtaatagt aatggttttc aaatcaaata cagccttgct ctgctgtgtt 300
tgctcagcat tatttccctc ccatactatc ttttccccac caggccttgg agaatcaatc 360
acacacctcg ag 372

<210> 245
<211> 367
<212> DNA
<213> Mus musculus

<400> 245
gaattcggcc aaagaggcct agtttctcac tgtagaaatg aagcctgtgt gacgtgatgc 60
ctgtgctaac tagctgactt acctgtgtca ctatgcacat gccatagtga catgtcatga 120
catgtcatgt tacacgcttc caaacatgtt gcccatggta aaaacacaca gcttatctgt 180
taattgaaaa gaggagttaa aaaccagcaa ccaatttcct tcctttcatc ttctctctcc 240
tctccctttc atttcccttc cttttctttt ctttctgact attttgatta ttccttgact 300
tttgtttcct acccattaaa tcgatctatt ttttcacaat cacagacaca cacagacaca 360
tctcgag 367

<210> 246
<211> 362
<212> DNA
<213> Mus musculus

<400> 246
gagtcctggc tgtccacatg gtcatcatca tcttcatcat ccatatcatc catgtggtca 60
tggctttcgt tggacttact tggaagggtc tcttgtttaa agtcattggt ttcttcagag 120
gacacagcat tctgtggggc taggagattc tgcttctgag atgggtcagg gtttagccat 180
gtggccacag catctgggta tttgttgtaa agctgctttt cctcagaact tccagaatca 240
gcctgtttaa ctggtatggc acaggtgatg cctaggaggc aaaagcaaat cactgcaatt 300
ctcatggtag tgagttttcc ttggacggct cgaggcaggt ctaggcctct ttggccgaat 360
tc 362

<210> 247
<211> 486
<212> DNA
<213> Mus musculus

<400> 247
gaattcggcc aaagaggcct atgcttgccg gcagactcgc cgccatgggc cgtgtgatcc 60
gagggcagag gaaaggcgcg ggttctgttt tccgtgcgca cgtgaagcac cgtaagggcg 120
ccgcgcgcct acgtgctgtg gacttcgcgg agcgacacgg ctacattaaa ggcatcgtaa 180
aggacatcat tcatgaccct ggccgcggcg ctcccctcgc caaagtcgtc tttcgggatc 240
cctaccgatt caagaagcgg acagagctgt tcatcgcagc ggaggggatc cacactggac 300
agttcgtgta ctgcggcaag aaggcccagc tgaatatcgg caatgttttg cccgtgggca 360
ccatgcctga gggtacgatc gtgtgttgtc tggaggagaa acctggggac aggggcaagc 420

tggcccgagc ctccgggaac tacgccacag tcatctccca caacccagag accaagaaga 480
ctcgag 486

<210> 248
<211> 182
<212> DNA
<213> Mus musculus

<400> 248
ctcgagagga aaggggacac gagcttagca tccaaagggt tttcgtggtc cacacagagt 60
aagggtccaa aaccagtgct gtggtccctt tgttgcctgg gggaggccag gttctctaac 120
tctcgaggca ggtctagaat tcaatcggcc aaagaggcct ataggcctct ttggccgaat 180
tc 182

<210> 249
<211> 101
<212> DNA
<213> Homo sapiens

<400> 249
gaattcggcc aaagaggcct accatgggat ctgtgactgt tttgtgtatt gttgtatctt 60
tactcctaga gtggtgcctg gcaagtagta gcaggctcga g 101

<210> 250
<211> 374
<212> DNA
<213> Homo sapiens

<400> 250
gaattcggcc aaagaggcct aatgatcttt ccccattgcc caggctggag tgcagtggtg 60
tgatcatagc tcactgcagc ctcaagtgat agctcgtagc tcactgggtc aagtgatcct 120
cctacctcat cgtgagtagc tgggactaca ggtgcccctc caccatactc acctaatgtt 180
ttgaatattt tgtagagatg aggtcttgct atgttgccca ggctggtctc aaactcctgg 240
gctcaagtga ttctcccgcc ttggcttccc aaattgctgg gattataggt atgagccacc 300
aagcccagcc ctgacctgat taataacacc caagacacac agaggtggga ccgtaacacg 360
gggagctact cgag 374

<210> 251
<211> 268
<212> DNA
<213> Homo sapiens

<400> 251
gcggccaaag aggcctacga gattctgtct ccaaaaaaaa aaagcataag gaaaaggaac 60
aattttagtt cctcataacc aattttcata tgctatattg aatctttcca aataaatgat 120
atttaatact aatgttttct gcttatttcc catgattctt ttggtgtctt acacttttaa 180
taataataaa atattccggc caggcgtggt ggctcacgcc tgtaatccca acaatttggg 240
aggccgagat gaacggatcc atctcgag 268

<210> 252
<211> 373
<212> DNA
<213> Homo sapiens

<400> 252
gaattcggcc aaagaggcct acttctttgt aatactcaga gacaatctca gtggcccctc 60
cagctgcatg gctttaaatg ccactgacat gctgatggtt cagtaggggg gcgctgtggt 120
gccctgccag atcccttcac acagccagtg cccaggaccc ccaccccaa cacactacca 180
cgcatggtag ctgccagatg cctacagcct cttttccaga gacttgccct caactgaagt 240
cacttgcctt caaatgtacc cacactccca gagaacttct cacagccaat aaatgactga 300

taaaggcttt cacaggttcc ttctgagagc acccccaaca ataaaccaag tgcattcaga 360
tccctgtctc gag 373

<210> 253
<211> 553
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (48)

<220>
<221> unsure
<222> (86)

<220>
<221> unsure
<222> (461)

<400> 253
gaattcggcc aaagaggcct atgcccgtga agaggcgggc ataacacngc aagacgagaa 60
gaccctatgg agctttaatt tattantgca aacagtacct aacaaaccca caggtcctaa 120
actaccaaac ctgcattaaa aatttcggtt ggggcgacct cggagcagaa cccaacctcc 180
gagcagtaca tgctaagact tcaccagtca aagcgaacta ctatactcaa ttgatccaat 240
aacttgacca acggaacaag ttaccctagg gataacagcg caatcctatt ctagagtcca 300
tatcaacaat agggtttacg acctcgatgt tggatcagga catcccgatg gtgcagccgc 360
tattaaaggt tcgtttgttc aacgattaaa gtcctacgtg atctgagttc agaccggagt 420
aatccaggtc ggtttctatc tacttcaaat tcctccctgt ncgaaaggac aagagaaata 480
aggcctactt cacaaagcgc cttcccccgt aaatgatatc atctcaactt agtattatac 540
ccagcacctc gag 553

<210> 254
<211> 398
<212> DNA
<213> Homo sapiens

<400> 254
gaattcggcc aaagaggcct aagaaagtga aaggtaagta gatagcacaa aaggaaatgg 60
tacaaataag cccaaaagtg taatgtatca gagtcaatgt ggataaaatt cacctattaa 120
aaggcagaga tgggataata ataacataaa tcctgctgta tcctggttaa taaaaggcac 180
acctaacacc aaaccaaaag aaaattttga acataaagtt ttgaaaaact aagaggtttt 240
tattaaacct cttttattaa atctatttta ttatttatag taagatgacg tgttagtcca 300
ttctcatgct actaataaag acatacccaa gattgggtaa tttataaaga aaagaagttt 360
aattgactca tagttttgca tagccgggaa agctcgag 398

<210> 255
<211> 492
<212> DNA
<213> Homo sapiens

<400> 255
gaattcggcc aaagaggcct actcctgtac ttctagaaat gatgcaaaca cttcaaggac 60
ccacaaatgt ggaagaaagg aaaatccaaa cctcctaggg cccagcaacc caaacaaaac 120
ctctatttac atttcataaa tttgccttca atcaactttt atgcaaatat tttttcacat 180
aattgtattc atatttaaac aaaatttttt ttttttttta gtagtgacag gggcttgcta 240
tgttgcccat gctggtctcg aacccctagc ctcaaacaat cttctcactt cagcatccca 300
aaatgttggg attacagaca tgagccactg cacctagcct aaacagagta ttttttatta 360
cacacctttt atgtgtccat gattacagta ggagttgtag gggatataaa ggcctatgcc 420
actgaagtcc aaagaagaag gaggtcaaga aagagttttt gaagtagcat ttaagatgga 480

taaaccctcg ag 492

<210> 256
<211> 408
<212> DNA
<213> Homo sapiens

<400> 256
gaattcggcc aaagaggcct agcccttgtt attttttac ttcattagtt tatgctagtg 60
tctctgtctc ttactcaatt ttcctctttt tcaatttctc tttctcctcc tttctctctc 120
tctctctctc acacacacac acaccctaca cacatgggca cacacacaca gtttcccagg 180
tttccctccc aaatccaaga agaaattgtt ccctcttctg tatctccagt ctgttccgaa 240
atcatggctt cactctcagg gatgataagc ccttctcctg cttctctttt cccagacccc 300
aaagtcttcc ctcagcctgc tctggcgtcc cccaccccaa gttccctgct caaactcctc 360
actaccagcc tttatcccct gaagtttgaa aatcccctgg acctcgag 408

<210> 257
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (71)

<400> 257
gaattcggcc aaagaggcct agtgatttgt ttgtttttg agatggagtc tcgcactgtc 60
atccaggctg nagtgcaatg gtgcaatctc tgctcactgc aaactccgcc tccctggctc 120
aagtgattct cctgcctcag cctcccgagt agctgggatt acaggcacat gccactgcgc 180
caagctaatt tttgtatttt tagtagaaac ggggtttcac catgttgcct gggctggtct 240
tgaattcctg acctcaggtg atacttgcct cgccctccca aagtgcttgg gttacaggcg 300
tgagccagtg cgcccagccg cctctgtgat tttttaaatt gtgtcactca cactaaattt 360
aacagcaatt tttttgataa ctcatttttt ttgtagtctt tccagaacat taaacttagt 420
tttcatagaa attgcaattc tctttgtatt taattaactt acataattaa aataacaact 480
ggctacactc gag 493

<210> 258
<211> 525
<212> DNA
<213> Homo sapiens

<400> 258
gaattcggcc aaagaggcct agacagagca agactctgtc taaaaaaaaa aggacaatga 60
gatatactaa aatggtccaa tatgttaatt aaaacatact actaaaaaaa gtgttaaata 120
gcctgaaaga attgtgataa aggggaaact gagtactggg aacaaaagag aacaagtagg 180
taacgaagtg gtggccaggt gcagtggctc aggcctgtca tcccagcact gtgggagacc 240
gaggcgggcg gatcacttga ggtcaggagt cagaccagtc tggccaacat agtgaaaccc 300
cgtctctact aaaaatacaa agttagccag ggtgatggt gggagcctat aattcgagct 360
acgtgggagg ctgaggtagg agaatcactt gaaccgggac ggtgctgcca cccgaggaag 420
tgacagctga actgagatct gactgaaggg ctgaagtctg gtggatgaag atgccagagg 480
agactgttct taggcagagg gagcagtgat acgaaggacc tcgag 525

<210> 259
<211> 344
<212> DNA
<213> Homo sapiens

<400> 259
gaattcggcc aaagaggcct agagcttagg gagcatagga gtctcctgga gaattagaag 60
aaacagattt tcctagctcc ggccccagac gttctgattt agtgtggtgt agaactcagg 120

agttagtaat attaatggac agtcttgagt atttgctgat gcaactggtc tgaggaccat 180
actttggaag acctgcttta gatagtagac aggacagtaa tttaaaatag gcaaatatgg 240
tttattttta aaatggtaaa actagaaaga tactgatttt atgtgtttaa aaaaaaaagt 300
ctgcatctga ctgctatggt tatccaagaa ggcacccgct cgag 344

<210> 260
<211> 262
<212> DNA
<213> Homo sapiens

<400> 260
gctgtgccta ataacattgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 60
gtgtgtgttt attgagaggg tgggggggca tcactcaaca ttcagcctgt acatactcaa 120
aggtgtagaa gtgacaaaga tgactcaacc aacaggactt cccatgactg gccagccaga 180
ggaagagggc atgaggacac agccagcagc gttactgggt cgtgatgacg cagacctgcc 240
gggacacccc caaattctcg ag 262

<210> 261
<211> 421
<212> DNA
<213> Homo sapiens

<400> 261
gaattcggcc ttcatggcct acaaacagct gggaatgtct ccaagccaga gtggactact 60
agtaggtatt cgttacttca ttgaattctg cagtgccccc ttttggggtg tagttgcaga 120
ccgctttaaa aaaggcaaaa ttgtcctcct cttttctctt ttgtgttggg ttttattcaa 180
cctgggcatt ggatttgtca aacctgctac cttgagatgt gtaccaaaga ttcgcccaac 240
aactcacccc accaatgcaa gtcaccagtt aactatcctg ccaacaaatt cttcctttac 300
ctctttcctc accatatcac caaaaatgcg tgagaaaaga aacctttgg aaacagggct 360
caatgtctca gacaccgtta ctttgccaac agctccaaac atgaacagtg aaacactcga 420
g 421

<210> 262
<211> 329
<212> DNA
<213> Homo sapiens

<400> 262
ggtcaaacaa tatgaaactt gaagaagtag ttgtgacttt gcagcttgga ggtgacaaag 60
agccaacaga gacaatagga gacttgtcaa tttgtcttga tgggctacag ttagagtctg 120
aagttgttac caatggtgaa actacatgtt cagaaagtgc ttctcagaat gatgatggct 180
ccagatccaa ggatgaaaca agagtgagca caaatggatc agatgaccct gaagatgcag 240
gagctggtga aaataggaga gtcagtggga ataattctcc atcactctca aatggtggtt 300
ttaaaccttc tagaccccca aaactcgag 329

<210> 263
<211> 499
<212> DNA
<213> Homo sapiens

<400> 263
gaattcggcc ttcatggcct aggtagcggg tacagaataa acacagaaat ctggatatga 60
gaaataactg tggaatttat aattccaacc aaatgaaatc cagcaccttg ataatcatga 120
tctgactaca atattattaa acaaagctcg aagaggaaaa taggaatact aaaaatatca 180
cattaagacc aagatgagtc cattatcacc aatgctctac agttccattc ttcaggattt 240
ccactccatt ttaaatgcta gggtcgattt tcttcatctt aaccatgaat gcttatgata 300
acaccaaata cttgatttac cttatatgaa gatggcggct ctgctctgag aggagtttca 360
ggtaacttgc caggtaaaac atcttcatct acagtggttt ccacattcct gataagatac 420
tggctagtgg tttgcagtga actaacactt tcttttttgg agaggttagg aagggtaaat 480
aaaatgtcac tgtctcgag 499

<210> 264
<211> 317
<212> DNA
<213> Homo sapiens

<400> 264
gaattcggcc ttcatggcct agtttttgtg agagtgtgta ggagtgagag tttatatttg 60
gagaatatga gatgtaagat atgtatacca gaagaattgg ggttatatat ttgtgatttg 120
ggttgtgaag atgtattttc catgtgtttt ctcagatgaa tgttggcgat ttgtatttgt 180
ctaatgtttg gcagatttgg aagaattatc ttgtgcacat gggcaataac agagaaagtg 240
cttgtgtcta ttttgtggat gtacgctctg tttggtttac gtatttggga aatgtaggaa 300
gaccatgcgt actcgag 317

<210> 265
<211> 301
<212> DNA
<213> Homo sapiens

<400> 265
gaattcggcc ttcatggcct agtatcacag gctttcttca aataaccagt tcctctaaga 60
cattgaaaat ataattcggt gtttaaaata aattcatacc cgttttgtgt gctgtgcata 120
aatagcaagt atatgtgtac cttaccaaac ttatggtccc cagtccccaa attccaaaat 180
tatgcaggag ggaaggttag ccattgcagt aaacaatttc tccctattga cccatgctct 240
ccagctgatt atgatgtggg cagtactcat ccaaggctat acagaccagc cgggtctcga 300
g 301

<210> 266
<211> 517
<212> DNA
<213> Homo sapiens

<400> 266
gaattcggcc ttcatggcct aggtaaagaa aaagcctgcc agggattcag aaggcatccc 60
actagcgatc agctgacatt cctaactgaa ggctgcaatg tgttgcttat tcattttgta 120
ccgtgggagc tgcggggact agcagagagc taaactatgc atttcaaaca gcagtgcttg 180
tgcagaaaga ggggtgagag agaggcagcc ggcgaggaaa gagcacagct ggactttctc 240
cttgttttta tccatttctg caggatcatg tattcataag ggatgaggcg ggccacggcg 300
atcccaggcc tgagccgcgg cctacccagt cagttcagag ccaggccctc cactaccgga 360
acagagagcg ctttgccacg atcaaatcag catctttggt tacacgacag atccatgagc 420
atgagcagga gaacgagttg cgggaacaga tgtcaggtta taagtggatg cgacaatgga 480
ttttacataa tggattgaat tctagacctg cctcgag 517

<210> 267
<211> 491
<212> DNA
<213> Homo sapiens

<400> 267
gaattcggcc ttcatggcct aatcccagct actcaggagg ctgaggcagg agaatcactt 60
gaacccggga ggcggaagtt gcagtgagct gagattgcgc ccctgcactc cagtccgggc 120
aacagagcga gactccatct caaaaatata tatatatatt cagcacccac cacttctccc 180
catctccact gcctgcacca gccccaggcc tgtccctcac ttgggtgctg tcgtagctcc 240
tgtctgggct gcttgcattc acctttgcca ccacagtctt ttctctccat agcagccggt 300
ctgattcttc tcaaacctaa gtcgcatcaa gtcactcagc tgctcttcag cctgcagtgt 360
ctcctgaact caccctggcc ctcaaggcca acccatcttc ctcgccagcc tcgcctcttg 420
gtgtctccct cacttgctcg gctcctatcg tgcgggcctc catgccgctc ctgaacacac 480
acagtctcga g 491

<210> 268
<211> 528

<212> DNA
<213> Homo sapiens

<400> 268
gaattcggct tcatggccta caatctagag aaagcaaaaa ctatggaatt gaatgtagga 60
aatgaagcta gctttcatgg acaagagaga accaaaactg gtatttctga agaagcagca 120
atagaagaaa ataaaagaaa tgatgactct gaagcagaca cagctaaact gaatgccaaa 180
gaagtagcaa ctgaggaatt taattcagat attagtcttt ctgataatac tacacctgta 240
aaattgaatg ctcaaactga gatttctgaa caaacagcag ctggggaact agatggagga 300
aatgatgtat ctgatctaca ctcatctgaa gaaacgaata ccaaaatgaa aaattatgaa 360
gaaatgatga tcggcgaggc aatggctgaa actggccatg atggtgaaac agagaatgag 420
ggcataacta ccaaaacctc aaagcctgat gaagctgaaa caaacatgtt gactgcagaa 480
atggacaact ttgtttgtga cacagttgaa atgagcacaa gactcgag 528

<210> 269
<211> 454
<212> DNA
<213> Homo sapiens

<400> 269
gaattcagct tcatggccta gggacggttg tctcaaaaaa caaaaacaaa aataagttag 60
aaaaaaaacc agaagaaact tgtccttagc gttcctaaga cttaggagag ctaagccggg 120
gagggcagga gtagatggac aagaccatac caaggtcagc tgttcccctc gccgagaagg 180
cagcagctga actttccgct tacgctgccc agagctgcca ggtgtagact gagaattcga 240
gttttgtttc ttccttgggg ttgtatctgc agccttttct ccctgggact cctgtctgct 300
gccaatggag ttgaagaact ggaatgatga cacagctctt cttctcttat tttctttgct 360
ggcctctccg gtgtctggga gcgggatgag gctgggctag agaagggtga tgaactgggg 420
ccatttctct tccacagctg tgagatgcct cgag 454

<210> 270
<211> 340
<212> DNA
<213> Homo sapiens

<400> 270
gaattcggcc ttcatgccta gtgtgctgta tgacaaagac gctgtctatg ttgaccttgg 60
tggcagccac gtttttcagg atgaagtggg gcccacccat gagctggtcc agagtctcat 120
ctctacccac tccaccattg atgccaagat ggcttcaagt cgagtgacgc tgttttctga 180
ttccaagcca cttgggtcag aggatataga taatcaaggg ctaatgatgc caaaggagga 240
aaaacaaatg gacttgaaca ctggtcgaat gcgtcggaaa gccattttcg gagatgaaga 300
tgaatctgga gatagtgatg atgaagaaga tgatctcgag 340

<210> 271
<211> 496
<212> DNA
<213> Homo sapiens

<400> 271
gaattcggcc aaagaggcct atgaagtcac tgagacaata gctgatctca ttgggccaat 60
gagtcttcta aaaattgcag tccttctccc ttggcattcc acagtcaagt aaacttacac 120
gtattgtctg gaagaatgaa tcccattcct cctccatctt ctttggctct ggtgtgggct 180
tatgtaatct ggatacaatc ccataaagtt gctgtgttta gtaatgtcat ttctccgtgt 240
ctgttgggga ctggtttcac gatcccctaa ggatagcaaa atctctggat gctcatggcc 300
tttatataaa agggcacgat atttgcatac aatctacaca tccccccaca tactttcaat 360
catctctact cataatactg aatacaatgt aaatcctatg taaatcgtta ttatgctgta 420
ttggtttttt cgtctgtgat attttcagta ttgcattgtt ttgttgtgaa aacagggtct 480
tgctcagtca ctcgag 496

<210> 272
<211> 403

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (25)

<220>
<221> unsure
<222> (29)

<220>
<221> unsure
<222> (43)

<400> 272
gaattcggcc ttcatggcct aagantgtnt gtgggtgtgg ganccagccg tatcagaaat 60
ctttttaggg aagcaaaggc gaatgctcct tgtgttatat ttattgatga attagattct 120
gttggtggga agagaattga atctccaatg catccatatt caaggcagac cataaatcaa 180
cttcttgctg aaatggatgg ttttaaaccc aatgaaggag ttatcataat aggagccaca 240
aacttcccag aggcattaga taatgcctta atacgtcctg gtcgttttga catgcaagtt 300
acagttccaa ggccagatgt aaaaggtcga acagaaattt tgaaatggta tctcaataaa 360
ataaagtttg atcaatccgt tgatccagaa attatagctc gag 403

<210> 273
<211> 455
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (133)

<400> 273
gaattcggcc ttcatggcct agtaggtaca tccaaaattt cttcatagtc tgcactcatt 60
ccctttgccc agcgaccaac tgtgaccatt cgctctgaat tctgactttc agggcaatct 120
ttctttaaat gtnccacaga gccacaaagt ttgcaaccgc caccatcagc atagagtcct 180
ttgggattat caggacaaga tctagacagg tgccccattt ctccacaaac aaaacatttt 240
gcaaaaggaa attcgccaag agccgggtct actttagcct tacacttggt tatttcgtgc 300
tctgtggacc cacacctgta acatatccca gtgcccatgt cttgattttc aagggcagcg 360
gggcaatctg caattccatg accaggtttt ctacaatgga aacacaccgc gcacgaatcc 420
cccaggcact cgaggcaggt ctagaattca atcgg 455

<210> 274
<211> 383
<212> DNA
<213> Homo sapiens

<400> 274
gaattcggcc ttcatggcct agggaaaaat gattgtagaa ctagtgggca tctaatgctc 60
taaaaaattt tttttgtttg ttttttttta aagacagggt ctcaccctct cccccagtcg 120
ggagtgcagt ggcacaatca cggctcactg cacccccgaa ctcctgggct caagcaatac 180
tcctgcctca ccctccggag tagctggaac tacagatgtg caccaccata aaaaacatat 240
ttaaaaattc tgaaatattt gtagtgctaa cgcttttttt atccactgag tatagaatca 300
cagcataatc ttcatatact tttaccttca caagttcttt aaatacagca tgctgaatca 360
ttttttcttt gacctgcctc gag 383

<210> 275
<211> 302
<212> DNA

<213> Homo sapiens

<400> 275
gggaagatct aaagacccag gaaggtctct gggataaagc caagatgaaa ctccccttac 60
ttctggctct tctatttggg gcagtttctg ctcttcatct aaggtctgag acttccacct 120
ttgagacccc tttgggtgct aagacgctgc ctgaggatga ggagacacca gagcaggaga 180
tggaggagac cccttgcagg gagctggagg aagaggagga gtggggctct ggaagtgaag 240
atgcctccaa gaaagatggg gctgttgagt ctatctcagt gccagatatg gtgatactcg 300
ag 302

<210> 276
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (319)

<400> 276
gaattcggcc ttcatggcct aaaactagaa acagttatat cctttagaga aattactatt 60
ttcaagattt ttgctagctg cttcttggca agttttgtaa acttttgttg acttttaact 120
ttatgtcact catctcttaa aactgtagat cacttttgtc ttgctaggta caatgttggt 180
gtcacacagt cttcattaca tgcatgtggg tggcacattt ctgatgtcag gctagcttcc 240
ttcctaacac ttccttgcac cattctagca gcatgatctt agggcatgta agcccatttt 300
aatgttagtc ttaaacatnt gacacacaca cacacacaca cacacacaca cacacacaca 360
cacatacacg gacattttgg gattatagtg atattgttaa attgaatata taactggaat 420
caagtgacat ttgaatgaga cagattcaca gaagtcatag agctcgag 468

<210> 277
<211> 443
<212> DNA
<213> Homo sapiens

<400> 277
gaattcggcc ttcatggcct actaagcacc atagaatata ttttgtttca caaatttggt 60
attcattcag aataagtatt tgaaaagtga gtaaattcta tgcaattata gttattaaat 120
gacttataaa ctgtgtttct cttccacttc ttgctacatt taatcttcta ggtgttcaga 180
tatctttgga gattataggc agcaataaag ctaaggcagc taacctttca acattcttgt 240
gtcaggctaa tattttggtg aaaggaattc ttgtgtttct caaagaacta gagctgaagc 300
agaaataagt tccaatgagc aagtgtccaa ttggaccatt gaatgaaatc tagtgtttta 360
aacaattctg atgtttcaat gttttgttct gttttctttt gatcttgtga gcagtaagac 420
atattttatg tgggtggctc gag 443

<210> 278
<211> 354
<212> DNA
<213> Homo sapiens

<400> 278
gaattcggcc ttcatggcct aggtggagtc cgtcatgccg gtggtggtgt gcacattgag 60
ccccggtata gacagttccc ccagctgacc agatcccagg tgttccagag cgagttcttc 120
agcggactca tgtggttctg gattctctgg cgcttttggc atgactcaga agaggtgctg 180
ggtcactttc cgtatcctga tccttcccag tggacagatg aagaattagg tatccctcct 240
gatgatgaag actgaaggtg tagactcagc ctcactctgt acaagagcca ggtgagaatt 300
tcaaggatta tcgacttcat attgcacatt aaagttacaa attaaagact cgag 354

<210> 279
<211> 414
<212> DNA

<213> Homo sapiens

<400> 279
gaattcggcc ttcatggcct acacaaacca gcttgctgac aaagggaagc tttctcctca 60
tgctttcaaa accgaatctg ggaggaaac tgacctcatt tctccccgc aggaggaagt 120
taagtcttca gagcctactg aggatgtgga gcccaaagag gctgaagatg atgatacagg 180
acccgaggag gctcaccgcc caaagaagag aaagaaaaga tgtccggttc tgcctccagt 240
gagaaccgtg aaggaacact ttcggattcc acgggtagcg agaaggatga cctttatccg 300
aacggttctg gaaatggcag cgcggagagc agccacttct ttgcatatct ggtgactgca 360
gccattcttg tggctgtcct ctatatcgct catcacaaca agcggacact cgag 414

<210> 280
<211> 352
<212> DNA
<213> Homo sapiens

<400> 280
gaattcggcc ttcatggcct acagacatgc agggtgacgg tgaagagcag aataaagaag 60
cgctgcagga cgtggaagac gaaaatcagt gagacataag ccaacaagag aaaccatctc 120
tgaccacccc ctcctcccca tcccaccctt tggaaactcc ccattgtcac tgagaaccac 180
caaatctgac ttttacattt ggtctcagaa tttaggttcc tgccctgttg gttttttttt 240
ttttttttt aaacagtttt caaaagttct taaaggcaag agtgaatttc tgtggatttt 300
actggtccca gcttttaggt tctttaagac actaacagga ctaactctcg ag 352

<210> 281
<211> 350
<212> DNA
<213> Homo sapiens

<400> 281
gaattcggcc ttcatggcct aactgagtgc cctcaaagag aagaagaaga aaaggacagt 60
ggaggaagaa gaccaaatat tccttgatgg ccaggaaaat aaaagaaggc gccatgatag 120
cagtggcagt ggacattcag catttgagcc cctggtggcc agtggagtcc ccgcttcttt 180
tgtgcctaag cctgggtctc tgaagagagg cctcaattct cagagctcag atgaccactt 240
gaataagaga tcccgaagct cttccatgag ctccttgaca ggcgcttaca caagtggcat 300
ccctagctcc agccgcaatg ccattaccag ttcctacagc tccactcgag 350

<210> 282
<211> 285
<212> DNA
<213> Homo sapiens

<400> 282
gcttttctaa gaaatatggg gtttagaatg gggttcctgc agctgctggt cgtagcggtg 60
ctggcatccg aacaccgggt ggctggtgca gccgaggtct tcgggaattc cagcgagggt 120
cttattgaat tttctgtggg gaaatttaga tacttcgagc tcaataggcc ctttccagag 180
gaagctattt tgcatgatat ttcaagcaat gtgacttttc ttattttcca aatacactca 240
cagtatcaga atacaactgt ttccttttct ccgactcccc tcgag 285

<210> 283
<211> 334
<212> DNA
<213> Homo sapiens

<400> 283
gtgcgaccaa aatccagtgg agagttcaat gtgtcagtca aatagcagag atcacctcag 60
tgacaaagaa agtaaggaga gcagtgttga gggggcagag aatcaaaggg gtcctttgga 120
aagcaaaggt cataaaaaat tactgcagtt acttacctgt tcttctgatg accggggtca 180
ttcctccttg accaactccc ccctagattc aagttgtaaa gaatcttctg ttagtgtcac 240
cagcccctct ggagtctcct cctctacatc tggaggagta tcctctacat ccaatatgca 300

tgggtcactg ttacaagaga agcacggact cgag 334

<210> 284
<211> 445
<212> DNA
<213> Homo sapiens

<400> 284
gaatttctag acctgcctca tgctctctcc aacaggcttg cagccaattt actggagcag 60
ggatgacgta gcccagtggc tcaagtgggc tgaaaatgag ttttctttaa ggccaattga 120
cagcaacacg tttgaaatga atggcaaagc tctcctgctg ctgaccaaag aggactttcg 180
ctatcgatct cctcattcag gtgatgtgct ctatgaactc cttcagcata ttctgaagca 240
gaggaaacct cggattcttt tttcaccatt cttccaccct ggaaactcta tacacacaca 300
gccggaggtc atactgcatc agaaccatga agaagataac tgtgtccaga ggacccccag 360
gccatccgtg gataatgtgc accataaccc tcccaccatt gaactgttgc accgctccag 420
gtcacctatc acgacaaatc tcgag 445

<210> 285
<211> 289
<212> DNA
<213> Homo sapiens

<400> 285
gaattcggcc ttcatggcct aatgagatcc tggattacaa ggatttagca gccattccga 60
aggtcaaggc aatttatgac attgaacgtc cagatcttat tacctatgag cctttctaca 120
cttcgggcta tgatgacaaa caggagagac agagccttgg agagtctccg aggactttgt 180
ctcctactcc atcagcagaa gggtaccagg atgttcggga tcggatgatc catcggtcca 240
cgagccaggg ctccatcaac tcccctgtgt acagccgcca caactcgag 289

<210> 286
<211> 422
<212> DNA
<213> Homo sapiens

<400> 286
gcgattgaat tctagacctg cccgagatga atgaccctta tgtcctctcc cctgaggatg 60
atgatgacca tcagaaagac ggcaagacct acaggtgccg gatgtgctca ctgacattct 120
actccaagtc ggagatgcag atccactcca agtcacacac cgagaccaag ccccacaagt 180
gcccacattg ctccaagacc ttcgccaaca gctcctacct ggcccagcac atccgtatac 240
actcaggggc taagccctac agttgtaact tctgtgagaa atccttccgc cagctctccc 300
accttcagca gcacacccga atccacactg gtgatagacc atacaaatgt gcacacccag 360
gctgtgagaa agccttcaca caactctcca atctgcaggt aaatgttcca cccacactcg 420
ag 422

<210> 287
<211> 400
<212> DNA
<213> Homo sapiens

<400> 287
gaattcggcc aaagaggcct aggattctca cccactgtgc ttccagccgg ctcaccttga 60
attcgtccat gattttgcga atggctttgc cgcgggcacc aatgatgcgg gcgtgaacgc 120
ggtggtccag cgggacgtcc tcagaaacca tctgctcaag ttcacccaca attctcagta 180
tagcatccct ggcagcttct gtgttctttt cgtaccctgt gatggtaatt tggtcctggg 240
gctaaaaaag gagaatgtag tcagaaaagg ggatgcctta ctgggattcc cgtcaggggc 300
aagagccggc ccccactgct gaggaaaaca gctcaggaga gaagatggaa agcaacgtca 360
cggctgattt aaaacaagag gttaacaacg tccactcgag 400

<210> 288
<211> 194

<212> DNA
<213> Homo sapiens

<400> 288
gaattcggcc aaagaggcct agcctttatt tgaactacta cattgctacc agattacatc 60
acttttcaga gttagagtaa cataatacct tggaaactat agccgaaaca gttcacatag 120
gaatgcactt tcatcccact tttgcacttt tcctttggca cagtgaagct tatcttacag 180
tcccatttct cgag 194

<210> 289
<211> 413
<212> DNA
<213> Homo sapiens

<400> 289
gaattcggcc aaagaggcct agggggacgt gaggtaagaa ggtgcccggg ccagggggca 60
ggagctctga tgtaggacag ctcagcccag tcaaggggtg ctatgaggac agcaggggcc 120
tccgagtctg gggtggcctc acccccacaa gcagtcctgg ctactcagca gcactaccca 180
gaggggacgc ctgggcagtt tcttcaattc ggtggcacat caacatcgtt tgaaacttgt 240
tttttcttgt tttgttttct agaatttgat tcttccagaa tgaccttctt atttatgtaa 300
ctggctttca tttagattgt aagttatgga catgatttga gatgtagaag ccatttttta 360
ttaaataaaa tgcttatttt aggctccgtc cccattgtgg ctctggtctc gag 413

<210> 290
<211> 213
<212> DNA
<213> Homo sapiens

<400> 290
gaattcggcc aaagaggcct acttaatatg actagcttac acaatagctt ttatagtaaa 60
gatacctctt tacggactcc acttatgact ccctaaagcc catgtcgaag cccccatcgc 120
tgggtcaata gcacttgccg cagtactctt aaactaggcg gctatggtat aatacgcctc 180
acactcattc tcaatcacct gagtccactc gag 213

<210> 291
<211> 136
<212> DNA
<213> Homo sapiens

<400> 291
gaattcggcc ttcatggcct acgcctacac aattctccga tccgtcccta acaaactagg 60
aggcgtcctt gccctattac tatccatcct catcctagca ataatcccca tcctccatat 120
atccaaacaa ctcgag 136

<210> 292
<211> 300
<212> DNA
<213> Homo sapiens

<400> 292
gcgattgaat tctagactgc cagagccttc cctgtggttg tgtaaatcat ttgtattcag 60
ttactgtgcc cggaaaaccc ttccctcgcg gtgcagggta cacacagatt cattcctcac 120
ttgcttgggg cagtcatgtg tctgtctctc tgtctctgtc tctctgtctg tctgtctgtc 180
tgtctctctc tctctctctc ttatctgcac gaagagctcc agatactcgt ctcctggaat 240
ggtggagatg aactaggcat ggaggtgcgt gaccaacctc agacggctcc cccactcgag 300

<210> 293
<211> 434
<212> DNA

<213> Homo sapiens

<400> 293
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gacttgctat ggagagactc tatgcagttt ttacagatta cgagcatgac aaagtttcca 180
gagatgaagc tgttaacaaa ataagattag atacggagga acaactaaaa gaaaaatttc 240
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gaagtattgt tttgaatgaa tacaaaaggt gcgatggtcg ggatttgact tcacttagga 360
atgtaagttg tgaggtagat atgtttaaaa cccttcatgg atcagcatta tttcaaagag 420
gacaaacgct cgag 434

<210> 294
<211> 386
<212> DNA
<213> Homo sapiens

<400> 294
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gagccactgt gcccagcctt aaccattcac ttttgagggg cattttggtt atttctaggt 120
tttggctatt gttcaactgc tatgaacaat catgtacaga tttttgaagc tgaaaaagca 180
ttgaagatgc ttccaaagat aaatattact gataagtttt tctccccagt aataagcagc 240
tggattttaa atgttagtct aaagcgtgag gtctaattgt gcagatttct ttactctctt 300
aggtgttatg cctcaaacat aactcccata ttgggcgtgg caatccagtt aatctggtgt 360
cagtagtgtt aaagaaccat ctcgag 386

<210> 295
<211> 433
<212> DNA
<213> Homo sapiens

<400> 295
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cttcttcaca gggcgtgtgg atttgtgtgt ggacgctggg tcatgctctc cagggtcacc 120
tgaactgggg gtgagctcct ggagccgccc gatgcactgc ttcagctcgt ttttgaggtc 180
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gactggcttt gttgaaattc ctcgcagttt tgatgctttc tccagaaact cgaactcatc 300
cctcttggtc aggctctgtt caatctcctc cctcaaggtc tggatctcac tcttcttctt 360
gaggagaatc tgataaatgg tgtcaaactt gctgttgacc ctcttcgtca cggcctcttt 420
ggccctcgag aca 433

<210> 296
<211> 363
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (197)

<220>
<221> unsure
<222> (343)..(344)

<400> 296
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ccccagcatc tgctacaaat cagggcacaa gaatgtgtct cacaggcttc ctcacccacc 120
ccgccccacg ggtatgctca ccagccggca ctgatgcatt cagagagcat ggaggaggac 180
tgctcgtgtg agggggncaa ggatggcttc caagacagta agagttcaag tacattgacc 240
aaaggttgcc atgacagccc tctgctcttg agtaccggtg gacctgggga ccctgaatct 300

ttgctaggaa ctgtgagtca tgccccaaga attgggtcaa cgnnctcttt ggccctcgag 360
aca 363

<210> 297
<211> 545
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (13)

<220>
<221> unsure
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<220>
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<222> (32)..(33)

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<220>
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<222> (59)

<220>
<221> unsure
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<221> unsure
<222> (81)

<220>
<221> unsure
<222> (211)

<220>
<221> unsure
<222> (228)

<220>
<221> unsure
<222> (343)

<400> 297
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tgatttgctt ttgcctccta ggcatcacct gtgccatacc agttaaacag gctgattctg 180

gaagttctga ggaaaagcag ctttacaaca natacccaga tgctgtgncc acatggctaa 240
accctgaccc atctcagaag cagaatctcc tagccccaca gaatgctgtg tcctctgaag 300
aaaccaatga ctttaaacaa gagacccttc caagtaagtc cancgaaagc catgaccaca 360
tggatgatat ggatgatgaa gatgatgacg accatgtgga cagccaggac tccattgact 420
cgagcgactc tgatgatgta gatgacactg atgattctca ccagtctgat gagtctcacc 480
attctgatga atctgatgaa ctggtcactg attttccgtc gacggcctct ttggccctcg 540
agaca 545

<210> 298
<211> 419
<212> DNA
<213> Mus musculus

<400> 298
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tgcagctaaa aatataaata ttttatgagg tagcataagt gtggggtgca aacataagat 120
aatagctagt attcataata attccatttg aattagagaa aaaaattcag aattgatact 180
atttgttaat ttgttgcctt tatggaagat gatttctaag ttcgttagaa tttcttagcc 240
aagcctgtct ctgacgtaaa tctgacctat tgtgtggttg gacttagaat attttccctt 300
atgggaaagt acgcttgaac ctcaacattg ggccagtgtt tctcctttgc ctgtgtagtg 360
tcatagttgg aggaaaacat ctaactagaa tgctgtacct cagcccccca gaactcgag 419

<210> 299
<211> 511
<212> DNA
<213> Mus musculus

<400> 299
gaattcggcc aaagaggcct agtggcggcg tccggcaaag tgatttggag aggtacaact 60
gatgagaaaa aaagagcaag agaggaaagg agagacttct gctgccaaca tgcagagaag 120
tattatgtca ttttttcaac ccacaaaaga aggtaaagcg aagaagccag agaaggagac 180
acccagcagc atcagagaga aggaaccccc tccaaaggtg gcgctgaagg agaggaatca 240
agtggtgccc gagagtgatt ctccagtgaa gaggacagga aggaaggtag cccaggttct 300
gagctgtgaa ggggaggacg aagatgaagc ccctggcacc cccaaagtcc agaagcctgt 360
gtcagactct gaacagagct ctcctcccag ccctgacaca tgtcctgaga acagtcctgt 420
cttcaactgc agctccccca tggacatctc cccatcagga ttcccaaagc gtcgaactgc 480
gcggaagcag ctcсccaaac ggacactcga g 511

<210> 300
<211> 663
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (272)

<220>
<221> unsure
<222> (330)

<400> 300
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gaagtattcc ctctgggctc tgctgcttgc cgtgctgggc acacagctgc tgggaagcct 120
gtgttccacc gttcggtccc agagttccga ggaaggatac agcaggaacg aaaaaacatc 180
agacccaata ttatccttgt gctcactgac gaccaggatg tggagctggg ttccctgcaa 240
gtcttgaaca agacgagaaa aatcatggaa cngggtgggg ccaccttcac caatgccttt 300
gtgaccacgc ccatgtgctg tccatcacgn tcatccatgc tcactgggaa gtacgtgcat 360
aaccacaatg tctacaccaa caatgagaac tgctcgtctc cttcgtggca ggcaatgcac 420
gagcctcgga cctttgctgt gtatctcaac aacaccggct acagaacagc ctttttgga 480

aaatacctca atgaatacaa tggcagctac atccctcctg gatggcgaga atggctcgga 540
ttaatcaaga attctcgttt ctataattac actgtttgtc gcaacggcat caaggagaag 600
catggatttg attatgcaaa ggattacttc acagacttaa tcactaacga gagcatactc 660
gag 663

<210> 301
<211> 412
<212> DNA
<213> Mus musculus

<400> 301
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gggcgcggtg cgggccgagg aggaggacaa gaaggaggat gtgggcacgg tggtcggcat 120
cgacttgggg accacctatt cctgcgtcgg tgtgttcaag aacggccgcg tggagatcat 180
agccaacgat cagggcaacc gcatcacgcc gtcgtatgtg gccttcactc ctgaagggga 240
gcgtctgatt ggcgatgcgg ccaagaacca actcacgtcc aaccccgaga acacggtctt 300
cgatgccaag cgcctcatcg gacgcacttg gaatgaccct tcggtgcagc aggacatcaa 360
gttcttgcca ttcaaggtgg ttgaaaagaa aactaaaccg cacattctcg ag 412

<210> 302
<211> 499
<212> DNA
<213> Mus musculus

<400> 302
gaattcggcc aaagaggcct aggactactc cttaataatg cagaccttac aggaagagcg 60
gtatagatgt gagcgactgg aagagcagct gaatgacctg acagagctgc accagaatga 120
gatcctgaac ttaaagcagg agttggccag catggaagag aaaatcgcct atcagtcata 180
tgaacgggcc cgggatatcc aggaggctct ggaggcctgt caaacccgca tttccaagat 240
ggagctgcag cagcaacagc agcaggtggt gcaactggaa gggctggaga atgccactgc 300
ccgaaacctt ctgggcaaac tcatcaatat cctccttgct gtcatggcag ttctcttggt 360
ctttgtgtca acagtagcca actgtgtggt ccccctcatg aagacacgca acaggacgtt 420
cagcacttta ttcctagtgg ctttcattgc ctttctttgg aagcactggg atgccctctt 480
tagctacgtg gtactcgag 499

<210> 303
<211> 472
<212> DNA
<213> Mus musculus

<400> 303
gaattcggcc aaagaggcct acatggagtc cccttctttg tttctctgca aagggctcct 60
gctcacagcc tcacttttaa tctgctggaa ctggtccact gcagcactgc tgacctctaa 120
agaaatgcgc ttctcagctg ctgaaggggc aaaggttctt ctctctgttc ctgaccagga 180
ggagaacctc ctctcctttt cctggtacaa agggaaggat gtaaatgaaa atttacaat 240
tgcacattat aaaaagtcca gcgattcact tcaacttgga aagaaagtca gcggcaggga 300
agaaatctat aaggatggct ccatgatgct ccgggccatc accctggaag acacgggatt 360
ctacacgtta caaaccttta aagcacaagg ccaacaggaa gtaacacatt tccatctcca 420
agtatacaag atcgtgacaa agccctacct ccagctcaac cacagactcg ag 472

<210> 304
<211> 543
<212> DNA
<213> Mus musculus

<400> 304
gaattcggcc aaagaggcct aagatgacag agggaaaaca taaagacaga ggagctatca 60
agcgaggaga gcgatctata aattgacaat gaaggtgtaa ttgaaccaga cactgatgcc 120
cctcaggaaa tgggagatga aaatgcagag ataaccgagg agatgatgga tgaagcaaat 180
gagaagaagg gggctgccat tgaagcccta aatgatggtg agctccagaa agccattgac 240

ttgttcacag acgccatcaa gctaaatcct cgcttggcta ttctgtacgc caagagagcc 300
agtgtctttg tcaaactaca gaagccaaat gctgccatcc gagactgtga cagagccatt 360
gaaataaacc ctgattccgc tcagccatac aaatggcgag ggaaagcaca cagactcttg 420
ggtcactggg aggaagcagc tcatgacctt gcccttgcct gtaaactgga ttatgacgag 480
gatgccagtg caatgctgag agaagtccaa cctcgggctc aaaaaattgc tgaacccctc 540
gag 543

<210> 305
<211> 559
<212> DNA
<213> Mus musculus

<400> 305
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agaaaaagga aaaaaagaag aaacggaagg cagagaaaca tcgtggccga attgggatcg 120
atgaagatga taaggggcct agggcacctc gcccacctca gcccaagaaa tctaagaaag 180
caggtggtgg gggtagcaat gctactacac tcagccatcc tggctttggg acttccggag 240
gaagtagcaa caagctacct aaaaagtctc aaaagacagc tccacctgtc cttcccactg 300
gctatgattc tgaggaggag gaagaaagca ggcccatgag ttatgatgag aagagacagt 360
taagcctgga tatcaataag ttacctgggg aaaagctggg tcgagtagta catatcatcc 420
aagccaggga accctctcta cgtgattcaa atccagaaga aattgagatt gattttgaaa 480
cactcaagcc gtccacactt agagagcttg agcgatatgt ttatcctgc cttcgaaaga 540
aaccccggaa agcctcgag 559
<210> 306
<211> 459
<212> DNA
<213> Mus musculus

<400> 306
gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccaa ttaaaaacga gctggcccac ttatgttgat acgtcagtgt 120
atagttatga atttgctcct catctggctc ccctggggcc tcctcaccac aacctttgga 180
acttcacagg cagagatgga gttggtccag cacattggtg tccctgccag taagatcatc 240
tgtgccaacc cctgtaagca agttgcacag atcaagtatg ctgccaagca cggggtgagg 300
ctgctgagct tcgacaatga agtggagctg gccaaggtgg tcaagagcca ccccagtgcc 360
aagatggttc tgtgcattgc tacccaggac tcccactctc tgaatcacct gagcctgagg 420
tttggggcgt cgctgaaatc ctgcagacat ctgctcgag 459

<210> 307
<211> 434
<212> DNA
<213> Mus musculus

<400> 307
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ccttgcttcc acacctggga ctgttcctgt gcctggctct gcacttatcc ccctccctct 120
ctgccagtga taatgggtcc tgcgtggtcc ttgataacat ctacacctcc gacatcttgg 180
aaatcagcac tatggctaac gtctctggtg ggatgtaac ctatacagtg acggtccccg 240
tgaacgattc agtcagtgcc gtgatcctga aagcagtgaa ggaggacgac agcccagtgg 300
gcacctggag tggaacatat gagaagtgca acgacagcag tgtctactat aacttgacat 360
cccaaagcca gtcggtcttc cagacaaact ggacagttcc tacttctgag gatgtgacta 420
aaaacaatct cgag 434

<210> 308
<211> 499
<212> DNA
<213> Mus musculus

<400> 308
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cccattctga agtggtataa agacgcacat gttgcaaagg gcaaaagtgt cttccttgag 120
caaatgaaga agtttgtaga atggctcaaa aatgctgagg aggaatctga gtctgaagct 180
gaagaaggtg actgaatttt gaaacaacat cctcagtaaa gcaaacagga gttgtagata 240
aaatgtcatg tctcatgtgt cctggttctt acatcttcct acctccctat atcaagcatg 300
atataagggc tttcatggca atttttattt taactgtttt tatggttact ggaaatgttg 360
gctttggttt ctgaaaccac gtgtgaggag caagctgcag gagccgtaga attgaatctg 420
atgttgcatt ggttttcagt taccttctac ctcctgtatt ttctactgta ataatgtgat 480
gtaaggccat ccgctcgag 499

<210> 309
<211> 105
<212> DNA
<213> Mus musculus

<400> 309
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ttctctacca aggcaagcaa gatgctcttc cccaagctcc tcgag 105

<210> 310
<211> 458
<212> DNA
<213> Mus musculus

<400> 310
gaattcggcc aaagaggcct aaaaaaacca aacaacaaaa acaaaaaaca aaaaaccccc 60
aaagccaacc aaccaaccaa ttaaaaacga gctggcccac ttatgttgat acgtcagtgt 120
atagttatga atttgctcct catctggctc ccctggggcc tcctcaccac aacctttgga 180
cttcacaggc agagatggag ttggtccagc acattggtgt ccctgccagt aagatcatct 240
gtgccaaccc ctgtaagcaa gttgcacaga tcaagtatgc tgccaagcac ggggtgaggc 300
tgctgagctt cgacaatgaa gtggagctgg ccaaggtggt caagagccac cccagtgcca 360
agatggttct gtgcattgct acccaggact cccactctct gaatcacctg agcctgaggt 420
ttggggcgtc gctgaaatcc tgcagacatc tgctcgag 458

<210> 311
<211> 578
<212> DNA
<213> Mus musculus

<400> 311
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acattgtggt gcactacacg ttcaacaagg ttctcatgct gcaggagccg ctgctggtcg 120
tggccgcctt ctacatcctg ttcttcaccg tcatcatcta cgtccgtctg gacttttcca 180
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acaaggctgt gaccagcgag attgctgtac tgcagtctcg gctgaagacg gagggctcag 420
acctgtgtga cagggtgagt gagatgcaga agctggacgc ccaggtcaag gagctggtcc 480
tgaagtcggc ggtagaagca gagaggctgg tggctggcaa gctcaagaag gatacgtacc 540
tggaaaacga gaagctcagc tcaggaaaac acctcgag 578

<210> 312
<211> 409
<212> DNA
<213> Mus musculus

<400> 312
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tgaactacag ttcccaagcc atagtaattt tttttttttt tttttgaatt agcgcatgcg 120
ggtttttaac cgcccgcgca tgcgcccttc aactttccgg tgacaagtac agcgtgcgtc 180
ctgtagcagg cggcgggctc atggctttcc tccttcgagt cgtgccaagg ttgcaggggc 240

ccactgcatg gaggaggcct ctacagggac tatggtgctg ctctgggcag ggggattcca 300
aaaggtgggt ggggagcagg tctccccact cacgggagaa gtcaccaggc accgagaccg 360
aaacattcca tacaatctac cggttccgag ccatccgagc agtctcgag 409

<210> 313
<211> 443
<212> DNA
<213> Mus musculus

<400> 313
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tccccaatag cttcctcatg gcagctgatt ctgtactgag actggcctat catttaagac 240
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ttgttcactg ctcagctgag tgggtgactc ctcaaaacct agtgtcacat agcagttgtc 360
taggaacaga tatgtcctgg ggtcccaact ggtccctgat tggcaaatgt gtctcagtag 420
acaatcgagc taacctactc gag 443

<210> 314
<211> 491
<212> DNA
<213> Mus musculus

<400> 314
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tgaatggtaa agagatgtca ccggggcatg gtcctgggga gactcgtaag gtggagcctg 120
tggcacacaa agactccacc tccctgtctt ctgagagcag cagcagcagc agtgagagtg 180
aggaggatgt gggagagtac cagccccacc accgagtgac cgagggcacc ataagggaag 240
agcaggagga gtgtgatgaa gagctggagg aagagcccgg ccaaggagcc aaggtagtag 300
agagggaggc agcagtgccc gacgccgtcc cagacagaca agcaggggcc agtgtgctcc 360
cagtagaaac agaggcccag gaacatgtag ttgcccaaaa gttacctgga gaaaagggtg 420
cacacggagg cactgctgag caggacccga gagaagaagc agaggaagac ccgcacagag 480
ttaaactcga g 491

<210> 315
<211> 593
<212> DNA
<213> Mus musculus

<400> 315
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tcctggtttc tcggcttctc atcgcagtca atcttggact ttggggtttt gctactgtca 120
gaaggacttc tttctgcttc aagtgcttga caacgcaccc ctttatcagg gtatcagagc 180
atcgccacag aatgaagctg gtttccatca ccctgatgtt attgggttca ctcgctttcc 240
taggcgcgga cactgcaggg ccagatactc cttcgcagtt ccgaaagaag tggaataagt 300
gggcgctaag tcgtgggaag agggaactac aagcatccag cagctaccct acgggactcg 360
ctgatgagac gacagttcct acccagactc ttgatccatt cctggacgag cagaacacaa 420
ctggccccct acaagccagc aatcagagcg aagcccacat tcgtgtcaaa cgctaccgcc 480
agagcatgaa ccagggttcc cgcagcaatg gatgccgctt cgggacctgc acatttcaga 540
aattggccca ccagatctac cagctaacag acaaagacaa ggtacagctc gag 593

<210> 316
<211> 431
<212> DNA
<213> Mus musculus

<400> 316
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caggaatgct gctggggctg ctgttgactt cctgtttaac tctctgcctc agctgtcaga 120

actcaaataa ttttgcactc accaacccag agaagagcat ccaccaggaa tcagatacaa 180
aggagaccag ggaagaggag gagctagaca ccgagatcct ggaggtgttc cacccaactc 240
aagagtggca gacccttcaa ccaggtcagg ctgttcctgc aggatcccat gtgcgaatga 300
acctacagac tggagtaaac gaggtgaagc tccaacaaga agacaaattt caaaataatc 360
tgaaaggatt taaaagaggc agaaggctgg acatcaacgc caacacatac acatctcagg 420
atcctctcga g 431

<210> 317
<211> 474
<212> DNA
<213> Mus musculus

<400> 317
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taacaatccg aaagtgaaat tttcaagtca acaggcatca actaaacaat ccaatgcatc 120
gtctgatgtt gaagtggaag aaaaagagac taacgtttca aaggaagaca ctgatcagga 180
agaaaaggcc agcaatgagg atgtgactaa agcagttgac ataaccactc caaaagctgc 240
caggcgagga agaaagagaa aggctgaaaa acaagtagac actgaagagg cgggaatggt 300
gactgcagca accgcttcta atgtgaaagc aagtcctaag agaggacgac ctgcagctac 360
tgaagtcaag attcccaaac caagaggcag acctaaagtg gtaaagcagc cttgtccttc 420
agacggtgac atggttattg atgaagataa aagtaaaaaa aaggatgact cgag 474

<210> 318
<211> 407
<212> DNA
<213> Mus musculus

<400> 318
gaattcggcc aaagaggcct aatttgaaga aagagtattt ggcactgcaa aaagctagca 60
tggcttctct aaaaaaaaca atatctcaaa tcaaattgga atcagaaatg gaaacagact 120
gtaaagcgcc tacagcaggc agtggtcaag agtgttccac ccaggagaag gtcagtgcac 180
aaggcccaca gtttgtgact ggagtgattg tgaagattgt gagcggagag cctctaccgg 240
gcaggaaaca agtcaaggat attttggcca caatctcaga agttgtttac attgatttgc 300
tagaaggaga tactgaatgc catgcccgat ttaaaacccc cgaggatgct caggcagtaa 360
tgaatgcaca gactgaaatt aggaagaagc acagttggaa cctcgag 407

<210> 319
<211> 572
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (65)

<220>
<221> unsure
<222> (184)

<220>
<221> unsure
<222> (358)

<220>
<221> unsure
<222> (438)

<400> 319
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ctganaacaa tgtgccttat tcatgtactt ggtaaaatat tttgtttatt tggaccaaag 120

aagaatcctg aagctcacat gaatgttagc gagattatta aacactggga ttatccaagc 180
gaanaatatg aggttgtgac tgatgatggt tacattcttc caattaaccg aattcctcat 240
gggaagaaca atgctaatag ttcagcccca aagatggtag tattttgtca gcatggcttg 300
cttgcaacac ctggagcaag ggtttccaat ccgcctgtca acagcctggc cttcatcnta 360
gcagatgctg ggtatgatgt gtggatggga agcagcagag gaagtacctg ggcaaagaaa 420
cacgtggccc tcaacccnga ttctaaagaa ttctgggatt ttagttttga tcaaatgata 480
aaatatgacc ttccagctac cattaatttc attctggata aaacaggaca aaagcagatt 540
tactacattg gccattctca aggaaactcg ag 572

<210> 320
<211> 353
<212> DNA
<213> Mus musculus

<400> 320
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gccttgctct tgggcttgta tgcattgagc atggacatct ccacattctg tcctctgacg 180
ggttttggct gcctctggac tggtggtgat gaagacttct ggttattgcg gcacacacag 240
atgaagaaga agaggaaggc gatagccagg ggaatggcca cacttggcac cagaatgtac 300
aagatttcca ttttattctt ctctttggaa tctaggcctc tttggccgaa ttc 353

<210> 321
<211> 451
<212> DNA
<213> Homo sapiens

<400> 321
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agaaaatgac taagaaaact tttttttttc ttttaggttg atggaaatca caatcttctg 180
acaaagcttt ctctggaaga ggaaaactgt cttattcagc tgaagtgtga aaaccttcaa 240
caaaaattag aacagatgga cgcagaaaat aaagagcttg agaagaagct ggcaaaccaa 300
gaagaatgtc ttaagcacag caatcttaag tttaaagaga aatctgcaga atatacagca 360
ttggccagac aactggaagc tgctttagaa gaaggaagac aaaaggttgc tgaagaaata 420
gagaaaatgt catctagaga gtgtgctcga g 451

<210> 322
<211> 307
<212> DNA
<213> Homo sapiens

<400> 322
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gccacgccca gcctacaagt tttctttaa ctactgcttt agtcaaccat atcctctagc 120
ttctgatatt ttcattgttt gttgtcattt tctagatatt caacaatttc aaattagatt 180
ttctcttcga ctaaagtgga agaatttttt cccgtttatt ttctacatgc taaagatttt 240
tattttcatt ttgttattaa tttctagtgt taccgtattg tcattagaaa atatgggctg 300
gctcgag 307

<210> 323
<211> 244
<212> DNA
<213> Homo sapiens

<400> 323
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tccctccctc ccccagctct ccgaacagca ggatttccca acggcagctt gggaaaaaga 120
cccagtggca gcttggggaa aagacccagc gctccgttta gaagcaacgt gtatcagcca 180
actgagatgg ccgtcgtgct caacggtggg accatcccaa ctgctccgcc aagtcacact 240

cgag 244

<210> 324
<211> 295
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (116)

<220>
<221> unsure
<222> (119)

<220>
<221> unsure
<222> (122)..(123)

<220>
<221> unsure
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<220>
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<222> (127)

<220>
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<222> (140)

<220>
<221> unsure
<222> (155)

<220>
<221> unsure
<222> (157)

<400> 324
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tnngnanttt tcttcttttn ttttttttt ttttngngag tctcattctg tctcccaggc 180
cccagtgcag tggcacagtc acattcactg cagcctcaac ttctcaactc aagagatcct 240
gccacctcag tgccccact ccacccacca tgagctgaga ttgcaggaac tcgag 295

<210> 325
<211> 313
<212> DNA
<213> Homo sapiens

<400> 325
gcaaacagac aaggcttaca ggttagttca ggatctgcgc cttatcaagc aaattgtttt 60
gcctatccaa cctgcggtgc caaacccata tactctccta tcctcaatac ctccctccac 120
aacccctcca taacccatta ttcggttctg gatctcaaac atgctttctt tgctattcct 180
ttgcatcctt catcccagcc tctctttgct ttcacttggg ctggccctga cacccatcag 240

cctcagcaac ttacctgggc tgtactgcca caagccttca cggacagccc ccattacttc 300
agtagccctc gag 313

<210> 326
<211> 538
<212> DNA
<213> Homo sapiens

<400> 326
gaattcggcc ttcatggcct agtgtatata tatggaacat tattcagcca taatgaggaa 60
taaagcatga cacatgctac aacgtggata aatatcaaaa acattctgct aaatgaaaga 120
agccagacac taaagatcac atagtatata aatccattta tatgaaatat ccagaatagg 180
taaatccata gcaacagaaa gcagattggt ggttgccagg ggctagttgg agggggaaat 240
gggactaaat gcttaatgaa taaggtttcc ttttgagatg agtttccttt cgacattttg 300
gaactagata aaggtgatga ttgtacacaa cactgaaatg ttcatttaaa aatgttaatt 360
ttggctgggc acggtggctc atgcctgtaa tcccagcact ttgggaggcc aaggggggca 420
aatcacaagg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc catctctcta 480
aaaatacaaa aaattagcca ggcgtggtgg tgggtgccta tagtcccagc tactcgag 538

<210> 327
<211> 326
<212> DNA
<213> Homo sapiens

<400> 327
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gaaaatatcc ccaaagttgt tttctagatt tgtggcttta agaaaaacaa aacaaaacaa 120
acacattgtt tttctcagaa ccaggattct ctgagaggtc agagcatctc gctgtttttt 180
tgttgttgtt ttaaaatatt atgatttggc tacagaccag gcagggaaag agacccggta 240
attggagggt gaccctcggg gtgggggcag gacgccccgg tttcggcaca gcccggtcac 300
tcacggcctc tttggccctc gagaca 326

<210> 328
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (242)..(243)

<220>
<221> unsure
<222> (425)

<400> 328
gaagacgctg ctgttgccgt tatggaacaa ggagtaccag aaaaggaaga gacaccacct 60
cctgttgaac cagaagaaga agaagatact gaggatgctg gattggatga ttgggaagct 120
atggccagtg atgaggagac agaaaaagta gaaggaaaca cagttcatat agaagtaaaa 180
gaaaaccctg aagaggagga ggaggaggaa gaagaggtag aagaagatga agaaagtgaa 240
gnngaggtgg aagaggaggg agaaagtgaa ggcagtgaag gtgatgagga agatgaaaag 300
gtgtcagatg agaaggattc agggaagaca ttagataaaa agccaagtaa agaaatgagc 360
tcagattctg aatatgactc tgatgatgat cggactaaag aagaaagggc ttatgacaaa 420
gcaanccggt cgacggcctc tttggccctc gagaca 456

<210> 329
<211> 461
<212> DNA
<213> Homo sapiens

<400> 329
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gagattcaca ttttacctga ttgccttcat tgccggcatg gccgtcattg tggataaacc 120
ctggttctat gacatgaaga aagtttggga gggatatccc atacagagca ctatcccttc 180
cccgtattgg tactacatga ttgaactttc cttctactgg tccctgctct tcagcattgc 240
ctctgatgtc aagcgaaagg atttcaagga acagatcatc caccatgtgg ccaccatcat 300
tctcatcagc ttttcctggt ttgccaatta catccgagct gggactctaa tcatggctct 360
gcatgactct tccgattacc tgctggagtc agccaagatg tttaactacg cgggatggaa 420
gaacacctgc aacaacatct tcatcgtctt cgccattgtt t 461

<210> 330
<211> 390
<212> DNA
<213> Homo sapiens

<400> 330
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ttgctagtgc tcacttatgt ctcctcctcc gaggacatca ccatccacga aaatgctttc 120
attgtgttca ttgcctcatc cctcgggcac atgctcctca cctgcattct ctggcggttg 180
accaagaagc acacagatcg caagtcctac agctggaaac agcggctctt catcatcaac 240
ttcatctcct tcttctcggc gctggctgtc tactttcggc acaacatgta ttgtgaggct 300
ggagtgtaca ccatctttgc catcctggag tacactgttg tcttaaccaa catggcgttc 360
cacatgacgg cctctttggc cctcgagaca 390
<210> 331
<211> 452
<212> DNA
<213> Homo sapiens

<400> 331
gaattcggcc ttcatggcct acattgttct gtactagtgg ttctcaaagt gtggtccctg 60
gaccagcagc atcagcattg cttgggagct tgttaaaatc tcaggcccca tgacagggct 120
attgaatcag acacttaagg atgaggcccg gaggtctgta ttttaacaag cctgtatgtg 180
attgtgattc aggctaaagt ttgaaaattg ctgcttcaaa ccagggttgg caaactatag 240
ctctgcaagc tggatctgtt tttgtaaatg aagttttatt ggaatatagc cacacccatt 300
catttatgga ttgtctgtgg ctacttttgt gctacaaagg cagagccaca aaggccaaac 360
tatttaccat ctgacccttt acagaaaatg tttgccaact cctgctgtat accattgggt 420
tggaggaatg aaggaggtag gtgggactcg ag 452

<210> 332
<211> 535
<212> DNA
<213> Homo sapiens

<400> 332
gaattcggcc ttcatggcct agacggcggg gtcgccgggg gcttcggggt ggcctcggcc 60
caggccatcc agccctgtga accgaatgga gtcccacacg ctgttgaggt agttgtgggt 120
tcccctggcc tcgggctcgg cgcagggtca gcgctcctgc aggcggcgct tgcggtacgg 180
gctggcgaaa gtggagacgg acggcaggat ggattcactt ggcgacatgg cggggagctg 240
ggaagacgga caccggtgag tggctgcccg ggagggctgg tcggggcgcg gacaggcggg 300
catggttctg ccaaggattt tgctttattt atcgcaagat gggggtattt cctccttcct 360
gcagtttata attgcatgaa ttagtgcagt gaattgagga tgcagtaaaa atatcttcaa 420
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aggtatacat caataattct taatgaatac aagaaagaac taccaatctc tcgag 535

<210> 333
<211> 629
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (200)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (364)

<220>
<221> unsure
<222> (393)

<220>
<221> unsure
<222> (571)

<220>
<221> unsure
<222> (594)

<400> 333
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agtaaggcgg gctctgcagg gcagtgggcc gggaccatga gagaggcggg tcagtctggg 120
ctccaagctc agcctctcgg attccccggg acccacggct tataatgcgc ttaaatccca 180
cgcctcgccc gagagacagn angtcaccgt caccgtcacc gcctagcgcc cttgacccgc 240
tcccactccg ctgcagcgga gggtgtgtga gggagaggac gcagggaggg aaaagcgttg 300
ggagggcaaa catcttttca taagcttttc cccttctata tgccatctct gatgggagcc 360
tctntagatc tttcgtccat ttactaattg ggntgttcga tttcttattg ttgagttgta 420
agtggttttt aatggtctgg atgccagaca ggtgttttgc aaatattttc tccgtctgtg 480
gcttgtttct ccattctctt atttcctttc ccagagcaaa agtttttaat tgtaacgact 540
tcataccaat atcttctttc atggtagaaa nttgtctttt atgtacttta ctgntgtatc 600
tacaaagtaa ttgccaaacc caactcgag 629

<210> 334
<211> 329
<212> DNA
<213> Homo sapiens

<400> 334
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ttcctgacaa gtgtaactca ttcctacaca acaaggcgga gtggaggtgc gaaattgagg 120
caactcttga gaggctaaag aaactagagc gtgatctcag ctttaaggag caggagctta 180
aagaacgaga aagacgttta aagatgtggg agcaaaagct gacagagcag tccaacaccc 240
cgcttctctt gcctcttgct gcaagaatgt ctgaggagtc ttactttgaa tctaaaacag 300
aggagtcaaa cagtgcagat tcactcgag 329

<210> 335
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (131)

<400> 335
gaattcggcg ttcatggcct aaatcctctc taataaataa tataggccag gcgcggtggc 60

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tcacacctgt aattccagca ctttgggagg ccgaggtggg cggatcatga ggtcaagaga 120
tcgagaccat ncctggacaa gatgatgaaa caaaaattag ctgggcgtgg tggtgcacgc 180
tatagtccca gctactcagg aggctgaggc aggagaatag cttgaatccg ggagacggag 240
gttgcagtga gccgagatgg cgccactaca ctccagcctg gcaacagagc aagactctgt 300
ctcaatgaat aaataaataa ataatatagc cataaaatta tataattcca tgtttgtttt 360
tattagttta tttagaataa atatcttaaa ataagttttt atacaatctc attattttta 420
actcagaaaa taattcagat agaagttcgg atctccacga aataacattt aattggttca 480
tcaaaaagag cataccatct ttattaaaac actgccatta atgcttttat ttttgcagat 540
agccagtctc ctcgag                                                 556
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<210> 336
<211> 594
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (311)

<220>
<221> unsure
<222> (339)

<220>
<221> unsure
<222> (547)

<400> 336

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ataaaaaatt gagttcctct aggttgttta aatgctcagt gaaaggttga agaatcttcc 120
agaaagaaga aaggagcctc agagacagag acctgtctcc ccagaggaga tggagacaga 180
gtggagcctg actgcctgga gtcgttctgc tgggagaaag cctggttgct gtggcacatg 240
cgtggcaggc tggaaatgat accctgtggg tatggtgctc tgttctgcat taattcaggc 300
tccaggctcc ntacatctcc tgtaaggacc agggagcang cagctgcagg agaaggggga 360
tgcgggggc catgggatta caaattctca cagcagccga gcccaggcag agaaaccctc 420
cctgtgaagt gagttgaata gtgtccttcc cccataccc ctaaaaactg acgtccactt 480
ggaacctcag aatgagaact tattgggaaa tagggatttt tgcagatgta atgatttgag 540
gatgtcnggg ttaaaatgat cagactggtg tctttataag agtaaaagct cgag       594
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<210> 337
<211> 331
<212> DNA
<213> Homo sapiens

<400> 337

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gaattcggcc ttcatggcct actacaattc tcataacttc caaaatctat tttcttcctc 60
atacctgaca catatacctt ctgctcccta gatcctttgg ctagactcac tcttttttga 120
gtctcccaaa ttaccattgt tcccggcctg gacttcaatc cagcctgtca cattattcct 180
gataccacac ctgaccccca tgactgtatc tctcggatac acctggcatt cgctccattt 240
ccccaaattt tcttctttcc tgttcctcac cctgatcaca cctggtttag tgatggcagt 300
tccaccaggc ctaatcaaca cacacctcga g                                331
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<210> 338
<211> 522
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (31)

<400> 338
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aatcactttt gggacttaga agtgggagaa aggattctct cagggccatg tggcatggtg 120
ccgtatcacc gcctgtcatt cacacatgca gggagggcac cgggagaaaa tctttaaaat 180
attggcatgc cataagggaa gggtttatgg gttgtttttt tttttttttt tttttttgac 240
tgttcacttt gtggggtgat taaacaaaaa aacctcagcc attattctct aacagctgtt 300
gtgccttacc tcaataaagt gccttttacc ataacacagc atctttagac tctataaatc 360
tcttctatt tattgtgttt aaatgataaa tgctttccaa taaaatgaca tcatgggtct 420
ggagagtgat gttcattttc tgagttactc ttaaatttgg ttgatttgaa ttttttatt 480
aggatgttgt ataatatgaa tctcagccac aggcttctcg ag 522

<210> 339
<211> 565
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (105)

<400> 339
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aggataaaca cattcttata catattatct gggaacgcag ggaangtatt atgtatccca 120
caggttctgt ttggtcttag agaagcacag aaacatgatt taaattgcta aacctgccaa 180
taccattaga aaaaaaatca gaaatttcct tggcacaaaa ctctccattg gttataaaag 240
gactaagagg tggagaactg ttttatatat tttatataca caaagacatg tgtaaatgtt 300
tccagaattt gtcatagctt aactgaaaga aagtaaaagg atcacttagt gccttcttac 360
agtgaagtat aaggatcatt tagtgtcttg tttacaattt agcaatagat tatctggtag 420
aatttggagc agaaaggact cagttcatct catgggtaac tcaaccctaa tttgtcaaaa 480
ataaaaaaaa gtgacgtaaa aagagttcct ttaaataagt tgaaatgact ttttagtaaa 540
gttttatttg caagctgaac tcgag 565

<210> 340
<211> 616
<212> DNA
<213> Homo sapiens

<400> 340
gcaaaaacag gaaatggagg ttaagatgga ggaggaaact gaggtaaggg aaagtgagaa 60
gcagcaggat agtcagcctg aagaagttat ggatgtgcta gagatggttg agaatgtcaa 120
acatgtaatt gctgaccagg aggtaatgga aactaatcga gttgaaagtg tagaaccttc 180
agaaaatgaa gctagcaaag aattggaacc agaaatggaa tttgaaattg agccagataa 240
agaatgtaaa tccctttctc ctgggaaaga gaatgtcagt gctttagaca tggaaaagga 300
gtctgaggaa aaagaagaaa aagaatctga gccccaacct gagcctgtgg ctcaacctca 360
gcctcagtct cagccccagc ttcagcttca atcccagtcc caaccagtac tccagtccca 420
gcctccctct cagcctgagg atttgtcatt agctgtttta cagccaacac cccaagttac 480
tcaggagcaa gggcatttac tacctgagag gaaggatttt cctgtagagt ctgtaaaact 540
cactgaggta ccagtagagc cagtcttgac agtacatcca gagagcaaga gcaaaaccaa 600
aaccaggagc ctcgag 616

<210> 341
<211> 344
<212> DNA
<213> Homo sapiens

<400> 341
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tttttccttc cttagaatca gtcttgatta cttttaaagg gactttacta atctttatct 120
tcctctccat cctgccatca ctgacctgcc tcaatccctg ttcaactctc tcttattcag 180
tctcctatgt ggattgtccc actgccttct gtcctctgcg cagccacaag gcagtctatt 240

taggatgcag atctgtttct gtcaccccac tgctagaccc ccgcagtggc tcctcacaac 300
cagcctatag cagacaagct tttattagag cagacagact cgag 344

<210> 342
<211> 286
<212> DNA
<213> Homo sapiens

<400> 342
gaattcggcc ttcatggcct acactgattg tttctcattt ttttccatct gctacctcat 60
tatatctacc aagatatcaa tccacttaat tttttttcc tgaaccattt cacggtaagt 120
tgcagacagg atagcccttc accttaaata attcagtgca tatactccaa gaacaagaac 180
attttttacg tgaccacagt gcataattat caaaatcata atggtgcata ctactatcca 240
gttgtggtgt atgattttaa tatgttatat agagagaaac gccgag 286

<210> 343
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (194)

<400> 343
gaattcggcc ttcatggcct agcttggtct tcccccgtaa ggaaatggcc ggggagctcc 60
aggggaccca ggcgccgtcg cttcggcgga gcctgggctg accagccagg acagcggggt 120
aaacccgaac aattctgcgc gaggtaggga ggccatggcg tccggcagta actggctctc 180
cggggtgaat gtcntgctgg tgatggccta cgggagcctg gacttgaaag aggagattga 240
tattcgactc tccagggttc aggatatcaa gtatgagccc cagctccttg cagatgatga 300
tgctagacta ctacaactgg aaacccaggg ttctcgag 338

<210> 344
<211> 277
<212> DNA
<213> Mus musculus

<400> 344
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gcaagctcct agcatctggc agtgggggcca agaaaataag gtttatgcat gtatgatggt 120
tttcttcctg agcaacatga ttgagaacca gtgtatgtca acaggtgcat ttgagataac 180
tttaaatgat gtgccagtgt ggtctaagct ggaatctgga catcttccat ccatgcaaca 240
acttgttcaa attcttgaca atgaaatgaa actcgag 277

<210> 345
<211> 291
<212> DNA
<213> Mus musculus

<400> 345
gaattcggcc aaagaggcct aaccgcagca agttaagatc tgtgtctgtg gacctgaatg 60
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ttacagtgca caccaagacc acactgtcca catttcagag cccagagttt tctgttacaa 180
ggcaacatga agactttgtg tggctgcatg acactcttac tgaaacaacg gattatgctg 240
gccttattat ccctcctgct cctacaaagc cagactttga tggccctcga g 291

<210> 346
<211> 438
<212> DNA
<213> Mus musculus

<400> 346
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agagacatca accctcatac tccaattcaa caatcctggg aagtgcttaa tgaggagggg 180
gacactgtat ggtcgaccac cgcagtacaa cccccatgga cctggtggcc cgacctcaca 240
cctgatattt gtaagttagt agcagggtca cttacctggg acctccccga ccatacggac 300
cttcataaac caccacctga taaacagtgt gtcccgagcg ggatagggag cacgtttgga 360
tgctcaggac agttctaccg agccaatctt cggtctgcag aattttatgt ttgccctggc 420
caaggccaac cactcgag 438

<210> 347
<211> 664
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (108)

<220>
<221> unsure
<222> (125)

<400> 347
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gtgtnccacc gttcggtccc agaggttccg aggaaggata cagcaggaac gaaaaaacat 180
cagacccaat attatccttg tgctcactga cgaccaggat gtggagctgg gttccctgca 240
agtcatgaac aagacgagaa agatcatgga acagggtggg gccaccttca ccaatgcctt 300
tgtgaccacg cccatgtgct gtccatcacg ctcatccatg ctcactggga agtacgtgca 360
taaccacaat gtctacacca acaatgagaa ctgctcgtct ccctcgtggc aggcaatgca 420
cgagcctcgg acctttgctg tgtatctcaa caacaccggc tacagaacag cctttttggg 480
aaaatacctc aatgaataca atggcagcta catccctcct ggatggcgag aatggctcgg 540
attaatcaag aattctcgtt tctataatta cactgtttgt cgcaacggca tcaaggagaa 600
gcatggattt gattatgcaa aggattactt cacagactta atcactaacg agagcatact 660
cgag 664

<210> 348
<211> 459
<212> DNA
<213> Mus musculus

<400> 348
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aaagccaacc aaccaaccaa ttaaaaacga gctggcccac ttatgttgat acgtcagtgt 120
atagttatga atttgctcct catctggctc ccctggggcc tcctcaccac aacctttgga 180
acttcacagg cagagatgga gttggtccag cacattggtg tccctgccag taagatcatc 240
tgtgccaacc cctgtaagca agttgcacag atcaagtatg ctgccaagca cggggtgagg 300
ctgctgagct tcgacaatga agtggagctg gccaaggtgg tcaagagcca ccccagtgcc 360
aagatggttc tgtgcattgc tacccaggac tcccactctc tgaatcacct gagcctgagg 420
tttggggcgt cgctgaaatc ctgcagacat ctgctcgag 459

<210> 349
<211> 568
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (120)

<220>
<221> unsure
<222> (165)

<220>
<221> unsure
<222> (391)

<220>
<221> unsure
<222> (478)

<400> 349
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agatgctgca tgagaagata tctgagaatg gaaagcatgg acaggatgcg gaatcacgtn 120
atccacttga gggggaggct gagtctgggg aggggcattt ccatnagagt gatggcaagc 180
tgaggcttga tggtgcagtg gtcttgtcaa ggaagcatac ggaggtggca tgtagtgccg 240
acatgacgaa agagaaggct gtggaggggg ctggggctgg ggctgggcaa ccatgctgga 300
gccatagcca tctattgata atggctgagt cggggcagca gcagcctgat ggccaaagac 360
tgcggcgccg gcaagatggg caagtgtcgt ngtctccgaa ctgcccggaa gctccgcagt 420
caccgacggg accagaagtg gcatgacaaa cagtacaaga aagcccactt gggcacancc 480
ctgaaggcca atccgtttgg gggtgcctct catgcaaagg gaattgtgct ggaaaaagca 540
ggggaagtag gcctctttgg ccgaattc 568

<210> 350
<211> 447
<212> DNA
<213> Mus musculus

<400> 350
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ttttcagatc tttcaatcct tgggatggag cccatgagaa atgccaccaa aggctgcaat 120
gagtctgtag atgaggtcac ggggccatgt agctgccagg actgctccat cgtctgtggc 180
cccaagcccc agcccccacc ccctcctatg ccctggagga tctggggctt ggatgccatg 240
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gcagtgtggt gccacagaag gcggtacttt gtgtctgagt acactcccat tgacagtaac 360
atcgcctttt ctgtgaatag cagtgacaaa ggggaagcct catgctgtga cccacttggt 420
gcagcatttg atgactgtca actcgag 447

<210> 351
<211> 156
<212> DNA
<213> Mus musculus

<400> 351
gaattcggcc aaagaggcct aattgaattc tagacctacc ctggcttgtg gatgactggg 60
acttgatcac cagacagaag cagctttttt atcttcctgc caagaagaat gtggattcca 120
ttttggagga ttatgcaaat tataagaagt ctcgag 156

<210> 352
<211> 434
<212> DNA
<213> Mus musculus

<400> 352
gaattcggcc aaagaggcct agccaagcag gagagaagag gctttcagtt cataaagacc 60

aaccagcaca ctgcaaggac catgaggcca ctgtgtatga cctactggtg gcttggactg 120
ctggccacgg tcggagctgc tacaggccca gaggctgacg ttgagggcac agaggaggtt 180
cacagagaga gtacatttac ctcaacaggt acaagcgggc aggtgagtcc cccgacaagt 240
gcacctacac tttcattgtg ccccagcagc gggtcacagg tgccatttgt gtcaactcca 300
aggagcctga ggtgcacctg gagaaccgtg tgcacaagca ggagctggag ctgctcaaca 360
atgagctgct taagcagaag cggcagatcg agacgctgca gcagctggta gaggtagaca 420
gaggcactct cgag 434

<210> 353
<211> 471
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (30)..(31)

<400> 353
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ccctgaaaag catgatgggt tccagatgtt gaccattgag ccagaaggtt tatattcacc 180
tgagtgtgag tttgctaagt gtaattgttc ctatgcccta gttctttaac gttaacataa 240
aaatgcattt attagttttg aacctttag aattttgcag ttaggagaat ttgaattatt 300
agaaagacct tgaactttta aagtgttaat tttttaaac caggagaaat ttacttttta 360
tataaatatt tagtattagg atattaacct gagattttga agacaaagaa aggaaagttg 420
tgatttaaca gtgaggtatt tgtgtgttct atttacacag gaaatctcga g 471

<210> 354
<211> 421
<212> DNA
<213> Mus musculus

<400> 354
gaattcagag gccccagtct gtagtcccgg aagaatgaag atttaaatac gaggccatgg 60
ctaaacatct gaagttcatt gccaggacag tgatggttca ggaggggaac gtggaaggtg 120
cctaccggac cctgaacaga atcctcacca cggatgggct taccgaagtc ataagtcgac 180
gacgctacta tgagaagcct tgccgccgcc gccagcggga gagctatgaa acatgccgga 240
ggatctacaa catggaaatg gctcgaaaga ttaacttctt gatgcgaaag aaccgtgcag 300
acccgtggct gggctgctga ggcttggggc taggcaccca cacacccatg tccaactcct 360
ttctttatcc agccaagttc tgttactttt ctctataata aaaactccat cacaactcga 420
g 421

<210> 355
<211> 408
<212> DNA
<213> Mus musculus

<400> 355
gaattcggcc aaagaggcct aaaggtttcc aagctttcag ttttgggaca ggtatggatg 60
ataaagggca cctgagcaat gaggaagcac ccaaggctat caaacccacc agtaaggagt 120
tcaggaaaac ctggggtttt cgaagaacca cgattgccaa acgtgagggt gcaggagaca 180
cggaggtgga ccccagtgag cagcaaccac agcagcataa cctctccctg cgccgcagtg 240

gacggcaacc aaaacgtact gagagggtag aagagtttct taccacggtt cggcgccgag 300
ggaaaaagaa tgtgccggtg tccctggagg attccagtga gcccacatct tccacagtca 360
ctgatgtgga gacagcttcc gaggggagcg ttgaaagcag ttctcgag 408

<210> 356
<211> 434
<212> DNA
<213> Mus musculus

<400> 356
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ccttgcttcc acacctggga ctgttcctgt gcctggctct gcacttatcc ccctccctct 120
ctgccagtga taatgggtcc tgcgtggtcc ttgataacat ctacacctcc gacatcttgg 180
aaatcagcac tatggctaac gtctctggtg gggatgtaac ctatacagtg acggtccccg 240
tgaacgattc agtcagtgcc gtgatcctga aagcagtgaa ggaggacgac agcccagtgg 300
gcacctggag tggaacatat gagaagtgca acgacagcag tgtctactat aacttgacat 360
cccaaagcca gtcggtcttc cagacaaact ggacagttcc tacttctgag gatgtgacta 420
aaaacaatct cgag 434

<210> 357
<211> 502
<212> DNA
<213> Mus musculus

<400> 357
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acacagttta actgcagaaa gaccattcct tgcaagcaat attgcttgga ggtgcagaca 120
aggtgtccat tcatattgcc cgacaatgac gaagtcattt acggaggcct ctccagcttc 180
atctgcacag gcgaaggtga agtttacctt tgaatgccta agaagaaatg actattggct 240
ctacgaaacc ttcctaacca atgatgaacc cgaatgctgt gacatcagga gcgaggagca 300
aaccgcaccc agacccaaag gaaccgtgga cagaagagac tcctgtccca ggacatcgct 360
cacagtgtcc tcggccacta gactgtgccc cggccggctg aagctgtgtg tactcgtcct 420
cattctcctc cacacagtgc tcacggcctc cgcagcgcag aactccacgg gactgggcct 480
gggtggcctc cccacgctcg ag 502

<210> 358
<211> 411
<212> DNA
<213> Mus musculus

<400> 358
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ttagaaacat tgttataata tattatttta ctgcttaaat ttcaagtccc gaggtagatg 180
gtcgagagac gagttctctg tactggaaaa gccttttcct ctgtccctgt ccttctggta 240
gcatcgatgg gctgcgttgc gtttggttcc gtttggttcc ttttcttccg tgcctcttca 300
ttaccaggtt ttctttcctc ctctgaccac attcttcaaa gagagtattc tttacctcag 360
gtttactgga caaaaacaaa acaaaacaaa accaatagtg ataacctcga g 411

<210> 359
<211> 427
<212> DNA
<213> Mus musculus

<400> 359
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cctcccagcc ctgccactga tgctgatgct gctctccatg cctcccccct gcgccccgca 120
agcctctggg atccggggag atgctctgga gaagtcctgt cttcagcaac ccctggactg 180
tgatgatatc tacgcccagg gctatcagga agacggcgtg tatctcatct accccctatgg 240
ccccagtgtg ccggtgcccg tcttctgcga catgacaact gagggcggca agtggacggt 300

tttccagaaa agattcaacg gctcagtgag tttcttccgg ggctggagcg actacaagct 360
gggctttggc cgtgctgacg gggagtactg gctggggctg cagaacctgc acctactgac 420
actcgag 427

<210> 360
<211> 580
<212> DNA
<213> Homo sapiens

<400> 360
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ctcgctcgcc ctcagcgcgg cccccgccat gacggaggcg ggtgccggtg ccgttgccgc 120
cgctgccgtc gcaggggggg agtcgggttc ccagaaagta gcttgatgag tgtccaaagt 180
agcagtggaa gtttggaggg gccgccatct tggtcccagc tctccacgtc tccaaccccg 240
ggctcggcgg cggcggccag gtccctgctg aatcacacgc cgccatccgg gaggcccagg 300
gaaggtgcaa tggatgagct tcatagtctg gatccaagaa ggcaagagtt attggaagct 360
agatttactg gagttgcaag tgggagcact ggaagtacgg gcagttgcag tgttggagct 420
aaagcctcaa caaataacga aagctctaat cacagttttg gaagcttggg atctttaagt 480
gacaaagaat cagagacacc ggagaagaaa caatcggaat catccagggg aagaaagaga 540
aaagcagaaa accagaatga aagtagtcag ggcactcgag 580

<210> 361
<211> 294
<212> DNA
<213> Homo sapiens

<400> 361
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gtgatttctt aatcagcagc tgtcaaacat agtgttcctt aatttaaaag cttgaacact 120
aaattataaa ttggagaggt tggaataatt acggtcatat ctctagaaac acaagtcttt 180
agtagcaaaa aagaaattag caagagaaga aaactgttca gtactttgaa aggaaaaagt 240
tttcagtgat agttttttta gatgaaaatt aacatgataa agaagggact cgag 294

<210> 362
<211> 174
<212> DNA
<213> Homo sapiens

<400> 362
gcgattgaat tctagacctg cctcgagaca ggtgccatta taggaacagc ccctctttgt 60
aatcttcacc ccagcctcac tccagtcatg ctgccctgtt ggactgggat gacccttctc 120
cccatcacca ctctgtggac cttgctctgt acgatggcta agcccaaact cgag 174

<210> 363
<211> 558
<212> DNA
<213> Homo sapiens

<400> 363
gaattcggcc aaagaggcct agtctctggt agcttttcca gctctttcct tgccgcttat 60
caacccttc ccaggagtct gcctctgctc ttttgctggc ttctcgtttt cttcctcact 120
ctccacgttg gattccaggt ccaagtggct atctgggctg tcgctctcct ctgtgtcctc 180
cccgcctgaa ctgtcacctt cttcctcgtt gctctcaggg tcactggctt ccttgctttg 240
ctcttcctgg acatcttcct cgacattcat ctttccatct ttgtaggaaa gcaaacgcct 300
gtcatcttta tctagcacga agccatcatt cagatcatct gctgacatat gttttggttt 360
cttaacattt tcatcctcat cctttccaag cattcttcga agtctctcag cctccagctt 420
cctgaggtgc tcctgctctt cctttgccaa ttctgcctcc gtcttcatcc tgttagaggg 480
ctgcgccttc atttcaaagc caagctcgcg aaccatcatg tcatatgcat cgggcttggg 540
tttttccttt ttgtctct 558

<210> 364
<211> 233
<212> DNA
<213> Homo sapiens

<400> 364
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acagacacaa aagaatttga tctcccataa gcaactgtga aattacaata acagatcctg 120
ggaagttcta caattctaat tcagtttttt caaggggggaa catggcaaag gtgttcagtt 180
tcatccttgt taccaccgct ctgataatgg gcagggaaat ttcggcgctc gag 233

<210> 365
<211> 276
<212> DNA
<213> Homo sapiens

<400> 365
gctagagggt gaagctggcg gagcaggagg atgggcggtg atagactaga gaacaagacc 60
tctgtctccg tagcatcctg gagcagtctg aatgccagaa tggataaccg ttttgctaca 120
gcatttgtaa ttgcttgtgt gcttagcctc atttccacca tctacatggc agcctccatt 180
ggcacagact tctggtatga atatcgaagt ccagttcaag aaaattccag tgatttgaat 240
aaaagcatct gggatgaatt cacaagtgca ctcgag 276

<210> 366
<211> 335
<212> DNA
<213> Homo sapiens

<400> 366
gaattcggcc aaagaggcct aatccagtca gactctggca actttaggt ggtactttct 60
attttaacac ctcaaggttg aagcagaaga ataaggagaa ggataagtcg aaggggaagg 120
cgcctgaaga ggacgaagag gagaggagac gccgtgagcg ggacgaccag atgtaccgag 180
agcggctgcg caccttgctg gtcatcgcgg ttgtcatgag cctcctgaat gctctcagca 240
ccagcggagg cagcatttcc tggaacgact ttgtccacga gatgctggcc aagggcgagg 300
tgcagcgcgt ccaggtggtg cctgatgaac tcgag 335

<210> 367
<211> 281
<212> DNA
<213> Homo sapiens

<400> 367
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ttgaaaatgt gtgtgagtgt acatgtctgt gtgtgaggca gagattagaa agtgtaagtg 120
tgtgcgtttt cattttacac atcttacatt ttcctttaat ttgtttgaaa gcctgttttg 180
tttgtggctt ccattcctgg aagtcccatg agttgttagt ggtgaagatg gaacagatgt 240
gtccaacccg ggggactcct gccctcaggg acacactcga g 281

<210> 368
<211> 300
<212> DNA
<213> Homo sapiens

<400> 368
gaattcggcc ttcatggcct aggctactgt cctctctgat caacctggat tgcaggtccc 60
aaggcacttt ttgtttttat ggcattatcc tttgcccgtg atgaaatcat ctggctactt 120
cgtcatgcag ataacatgcc aaagaagagt gcagacgact ttatagataa gcacattgct 180
gaattaatat tttacatgga agaacttaga gcacatgtga ggaaatacgg acctgtaatg 240
cagaggtatt acgtgcagta cctttctggc tttgatgctg ttgtccccaa tgaactcgag 300

<210> 369
<211> 484
<212> DNA
<213> Homo sapiens

<400> 369
gcgaaggtga tccagacgca agatggctgt cctctctaag gaatatggtt ttgtgcttct 60
aactggtgct gccagcttta taatggtggc ccacctagcc atcaatgttt ccaaggcccg 120
caagaagtac aaagtggagt atcctatcat gtacagcacg gaccctgaaa atgggcacat 180
cttcaactgc attcagcgag cccaccagaa cacgttggaa gtgtatcctc ccttcttatt 240
ttttctagct gttggaggtg tttaccaccc gcgtatagct tctggcctgg gcttggcctg 300
gattgttgga cgagttcttt atgcttatgg ctattacacg ggagaaccca gcaagcgtag 360
tcgaggagcc ctggggtcca tcgccctcct gggcttggtg ggcacaactg tgtgctctgc 420
tttccagcat cttggttggg ttaaaagtgg cttgggcagt ggacccaaat gctgccaact 480
cgag 484

<210> 370
<211> 316
<212> DNA
<213> Homo sapiens

<400> 370
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gtggtgcttc tcggccctcc ttcccaccat cgtctactac tcagccttct ttgaagccca 120
ctggacacgc tctggggaga acaggacaac catgcacaag tgctacactt tcctcatctt 180
catggtgctg ctcctaccct cgctgggact gagcagcctg gacctcttct tccgctggct 240
ctttgataag aaattcttgg ctgaggcagc tattcggttt gagtgtgtgt tcctgcccga 300
caacagcgcc ctcgag 316

<210> 371
<211> 255
<212> DNA
<213> Gallus sp.

<400> 371
gaattcggcc aaagaggcct acaaagaaaa gaaagaaagg gaaagaagag gaaaaacatt 60
tataaatgcc attgtctaat gtcttttcaa tttaaacgta acatgattat ctacatatat 120
ctacaaatat ctacaattat ctacactgtt tgcagatacg attctttggt tatcttcact 180
tttcccttat gttgcaacta tcaagaaaaa aatgtttgta taccctttga aagaaataat 240
aaatataacc tcgag 255

<210> 372
<211> 253
<212> DNA
<213> Gallus sp.

<400> 372
gaattcggcc aaagaggcct aggtgggtga aagaacaggt tgcaattgaa ttctggtttt 60
cagagctgga ataagatagt tttttccccc cacgttgcac gttttccccc cccccatgtt 120
gcacgctatg ggttttggc tggtatcagc attactccac caaggggctg tttgctgtct 180
gggtacttgc caggtgataa gaatgttagg gcaggaccaa aatatgtcaa cagtgatact 240
ggaaacactc gag 253

<210> 373
<211> 287
<212> DNA
<213> Gallus sp.

<400> 373
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cttttttcct ggttgcgttt gtacctttgg tgaagccagc accacctata cagcaagatt 120
cacccaagtt ttatgagtat gttgatgcag attttgccac gggaagcctg atccaacagg 180
attatgaaat gctgcccaag gatacaataa aggatggaac aaatgtttct cttgacactg 240
ccctgagact gcaagcagat gacagcgaac tgagtgccag actcgag 287

<210> 374
<211> 427
<212> DNA
<213> Gallus sp.

<400> 374
gaattcggcc aaagaggcct aaagcgacag aggactagag atgaagatct ttttattatt 60
caccttttcc acgtttttct tgtctgcttt tgaacaagca gccgcatctg ctcactatga 120
caagatttta actcatagtc gaataagggc acgcgaccaa ggcccaaatg tctgtgccct 180
tcagcaagtt atgggaacca aaaagaaata cttcagcacc tgcagaaact ggtaccaggg 240
atccatctgt ggaaagaaag caactgtctt atatgagtgc tgtcctggct acatgaagat 300
ggatggtatg agaggatgtc ctgcagttgc tcctattgat catgtatatg gcactcttgg 360
tattgtggga gctacctcca ctcagcagta ttctgacatg tcaaagctga gagaagagat 420
actcgag 427

<210> 375
<211> 204
<212> DNA
<213> Gallus sp.

<220>
<221> unsure
<222> (74)

<220>
<221> unsure
<222> (76)

<220>
<221> unsure
<222> (115)..(116)

<400> 375
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aagacaccga catntncttt gtgtgtgtgt gtgtgtgtgt gtgtctcatc gtgtnnacaa 120
agccttatct cagaactggg catctcccag ttctccctgc tccttcctga gcctcatttg 180
agttaccaac ccccaccact cgag 204

<210> 376
<211> 279
<212> DNA
<213> Gallus sp.

<220>
<221> unsure
<222> (41)

<400> 376
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tttccccatt ggcacacgcc aaatttgggt ccttacagct cgcgacaaag gagatgcatc 180
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<210> 377

<211> 375
<212> DNA
<213> Gallus sp.

<400> 377
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cagactgtct tagtcaatga cacagtctcg gggtacattg ggacagacgt cgtcctgcac 180
tgcagcttca ccaacccgct ccccaatgtg aagatcacgc aggtcacgtg gcagaaggtc 240
accaacggca ccaagcagaa tgtggccatc tacaaccccg ccatgggggt ctccatcctc 300
ccaccctaca aagaacgggt gactttccgg aacccttcct tcaaagatgg caccattcag 360
ctctctcggc tcgag 375

<210> 378
<211> 396
<212> DNA
<213> Gallus sp.

<400> 378
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ccactgcagg aactgattga tcagtatgat gtccagaggg acgacagtag cgatggctct 360
ttggaagacg atgactatca taccacaaca ctcgag 396

<210> 379
<211> 293
<212> DNA
<213> Gallus sp.

<400> 379
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caatggaagt tatggctaca gaacacatac aggaatttgc atgctttact gactatgccg 180
aaaagctggt ttgtcactgg aaggtgcctg aacagctgaa ctgctccaaa gacttcctgc 240
tctactacag gaaggaactt tttcctccca gaaatgtgtg tggccccctc gag 293

<210> 380
<211> 297
<212> DNA
<213> Gallus sp.

<400> 380
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tttgtcatgc tgacctacgc ctggcacacg tccttcaagg cgctgggcac cacctaccag 120
ccgctgctgg gcaagacctc ctacttccac ctcatcacct ggtccatccc tttcgtactc 180
accgtggcca tcctggctgt ggcacaggtg gatggtgact ccgtcagcgg tatctgcttc 240
gtgggttaca agaactatcg ctaccgtgcc ggctttgtcc tggcacccag actcgag 297

<210> 381
<211> 272
<212> DNA
<213> Gallus sp.

<400> 381
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ctcagaagaa gatgaagaag cttattctgc ttttctcatt gttcttggct ccagcattct 120
cttataaaga aaatcagaaa ataaaccaaa acttttcttc aaacaatacc agtcataaac 180

gacttaagag agactggata tggaaccgaa tgcatatcag agaagagatt gattcaccat 240
taccacatca cgttggcaag ctcacgctcg ag 272

<210> 382
<211> 641
<212> DNA
<213> Gallus sp.

<400> 382
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aaagcttcac aaccagcaga gttttgttct ttgggagttt gtaataagag acactccttc 120
acaaaggttc atatcatcac ataggagagt gttatatata ctgggagaac aatagactgt 180
attcattgtg gtattatcca aagatctgtt ttctactgcc ctgacttaaa gcagagtacc 240
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tttttcttatt ttccattctc tgtgaaacaa gtgcattagt gttacccaac tccactgacc 360
tactcctgtc aaacaataat ttcactgaca ttgagacggc tttggcagct catctggact 420
cagcaaaaat tcccaaagcc aggcggaagc gctacatttc acagaatgac atgattgcca 480
ttcttgatta tcataatcaa gtcagaggca aagtcttccc acctgcttcc aacatggaat 540
atatggtttg ggatgaaact cttgccaaat ctgcagaggc ttgggctgct acatgcattt 600
gggaccatgg accttcctac ttactgagat tcttgggcgc g 641

<210> 383
<211> 706
<212> DNA
<213> Homo sapiens

<400> 383
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aaaaaataat tgaatttgag aaaatagaaa gctgaattac taatgatgct gatctttgat 180
tacagactat tttggatatt agattgtcct acctaatttc acaacagtag tccaatccag 240
ctgtaaattt cctatctcca caaatttaac atggcagctg acatatatta atatatttta 300
gcatcagagt atcttctaag aattgttcaa cttaaaaatc cactttcaaa tttgttgctt 360
tatgttatac aactgttgta atacttcata ctgataaacc gctttaaaat aagtaagtag 420
ttaaccttca aaccaagaac tgacaggtat tattacctcc attttgcaga tggaaaaaca 480
ggatgaaaga ttaaaatttt tgtccaagac cataaaagcc agctgtggat ccctgggtga 540
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aaaaaaaata ttttcagcca aagaggtgag ggaatagata tgtgcgcttg caaggaagtc 660
tgcagggtaa ctccatatca catcataggc ctctttggcc gaattc 706

<210> 384
<211> 481
<212> DNA
<213> Homo sapiens

<400> 384
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aagttccgct ctgttctggt tgaagcaacg gtgaaactgg atgaactggt gaagaaaatt 180
ggcaaagctg tggaagactc caacccctac tgggatgcac ggagggtggc gaggcaggct 240
cagctggaag ctcagaaagc cacgcaggac ctccagaggg ccacagaggt gctccgcgcc 300
gccaaggaga ccatctccct ggccgagcag cggctgctgg aggatgacaa gcggcagttc 360
gactccgcct ggcaggagat gctgaatctc gccactcaga gggtcatgga ggcggagcag 420
accaagacca ggagcgagct ggtgcataag gaggtcgacg gcctctttgg ccctcgagac 480
a 481

<210> 385
<211> 589
<212> DNA
<213> Homo sapiens

<400> 385
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catggagtgt cagttccctg gatggttttt aacatgctta tattacaagc agaaattgta 120
gtgtttgcac tgtcaacaga cattaggaca gaggatttat caacagaact cacaaaggga 180
tgttctttaa ttgctcccga tatagcagtg ctgcaaacag atacagggac agaattttta 240
ttaaaaagca tgggcacact gctattttca gaagaggtag atgaaacaat tttctcagat 300
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gacttgttgc taggagatct acagtttgga ttgacaataa tgacaccagt cgaaccttcc 480
atttttgttt caggggtaga agagacttct aagtttggag gcccttcctt tgagctgagc 540
ggaggaggca accgggtctc tttagaggtc tggaagagat gggctcgag 589

<210> 386
<211> 305
<212> DNA
<213> Homo sapiens

<400> 386
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agctgcctgg agtgttattt taagaaagca gaagcaccat catttgcaca ctccttatag 120
atcacacacc ttaaccctga ctttttttgc tccagttttt cagaagaagt gaagtcaaga 180
tgaagaacca tttgcttttc tggggagtcc tggcggtttt tattaaggct gttcatgtga 240
aagcccaaga agatgaaagg attgttcttg ttgacaacaa atgtaagtgt gcccggattc 300
tcgag 305

<210> 387
<211> 197
<212> DNA
<213> Homo sapiens

<400> 387
gaattcggcc ttcatggcct actgcctcag atttcgtgca gttggttgtc gtttgctgga 60
ggattccatt cctgcttgtc cagatgtgtc gacacaaaat tatccgcttt ctggctcagg 120
ttttggtaag ctggcttggt gtccacgtca gccttgcagt cccggcggaa gctgtcaaaa 180
aggcccctgc tctcgag 197

<210> 388
<211> 346
<212> DNA
<213> Homo sapiens

<400> 388
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ttctcacaga attgatgaag atggagaaaa cacacagatt gaggatacgg aacccatgtc 120
tccagttctc aattctaaat ttgttcctgc tgaaaatgat agtatcctga tgaatccagc 180
acaggatggt gaagtacaac tgagtcagaa tgatgacaaa acaaagggag atgatacaga 240
caccagggat gacattagta ttttagccac tggttgcaag ggcagagaag aaacggtagc 300
agaagatgtt tgtattgatc tcacttgtga ttcgtggagt ctcgag 346

<210> 389
<211> 502
<212> DNA
<213> Mus musculus

<400> 389
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cagcatgtgg cagctactac taccaacagc tctggtactt acagctttct ctggcattca 120
agctggtctc caaaaggctg tggtgaacct agaccccaag tgggtcaggg tgcttgagga 180
agacagcgtg accctcagat gccaaggcac tttctccccc gaggacaatt ctatcaagtg 240
gttccataac gaaagcctca tcccacacca ggatgccaac tatgtcatcc aaagtgccag 300

agttaaggac agtggaatgt acaggtgcca gacagccctc tccacgatca gtgacccagt 360
gcaactagag gtccatatgg gctggctatt gcttcagacc actaagtggc tgttccagga 420
gggggacccc attcatctga gatgccacag ttggcaaaac agacctgtac ggaaggtcac 480
ctatttacag caacggctcg ag 502

<210> 390
<211> 455
<212> DNA
<213> Mus musculus

<400> 390
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aacttcatga tcgattggcc cagattgcag gagaccatga atgtggcagt tctagtcaaa 120
ggatgctttc tgtccaagaa gcagctgcat atttaaaaaa tttaggtcct gagtatgaag 180
atgtatttaa tacttcattg ctgtggattt ttaaaaatgg gaaagatgtt ggaataaggt 240
gtgttggtta cgggcctgag gaagacttga caaacataac tgatgtgcag tttttacagt 300
ccaccaggcc ccagatgccc ttctggtgcc gtttccggcg tgctttcatt actgtgaccc 360
ataggttatt gttgttatgt ttaggtgtag tgctggtgtg cgttgctctc cggtacatga 420
gataccgctg gactaaggag gaaacgggac tcgag 455

<210> 391
<211> 600
<212> DNA
<213> Mus musculus

<400> 391
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tgaacgtgat ggtaactgga agttgggatc agacagttaa gctgtgggac cccagaactc 120
cgtgtaatgc tgggactttc tcccagccgg aaaaggtcta caccctgtca gtgtctgggg 180
acaggctgat tgtgggcacg gcgggccgcc gagtgctggt gtgggacttg cggaacatgg 240
gctatgtgca gcagcggagg gagtccagcc tgaagtacca gactcgctgc atccgagcct 300
tcccgaacaa gcagggttat gtgttgagct ccatcgaagg ccgagtggct gtggaatact 360
tggacccgag ccctgaggtg cagaagaaga agtacgcctt caagtgccac aggctaaagg 420
agaacaacat tgagcagatt tacccagtca acgccatctc ctttcacaac atccacaaca 480
cgtttgccac aggtggttcg gatggattcg tcaatatttg ggacccattt aacaagaagc 540
gcctgtgcca gttccatcgg taccccacca gcatcgcttc ccttgccttc agtaatgacg 600

<210> 392
<211> 976
<212> DNA
<213> Mus musculus

<400> 392
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ctataagtag agcagatagg acatagggtt tacacagttt attgaggtat taaatttact 180
ttgcagtgga tatttttaaa tatatacctg agctgacgtg tttttaactg agtttttttg 240
tttttttttt ttaatgctac tcatttggat tgctctttta ataaactctt cttgtatagg 300
aatgaaatca ccaggagaac agctggtgtg cctgccacca gtggaggcct ttcctaatga 360
tccccgggtc atcaatagag aaagaagctg tgattaccag ttcccatcct ctccgtctac 420
agacactcta aaaggcacta ccgaggagga cactgtaaca gcaggtcagg cgatggcagt 480
ggaagagcag tgtgtgccag cagcagagct tcctagagtg agcgagatta cagaaaatac 540
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cctttctgag ttcatacatt ctaatacttc taaagctggt gttgaggaat ttgtagatgg 720
tttgcatgaa aaactaaata ctgttgttat tacagcatca gctaagggtg tgagtttgcc 780
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tgttgtgtca atttcctcaa gtgacttcag tgctaaagaa ctttttgagc cgctctgttc 900
tgaacattta aaagataaca actctaatga acagtattcc tcttcagtgg aagtagaaat 960
gaatcggctc cctata 976

<210> 393
<211> 436
<212> DNA
<213> Mus musculus

<400> 393
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agccctctcc ttggctttcc tgctgagtct ccgaggagct ggggccatca aggcggacca 180
tgtgtcaact tatgccgcgt ttgtacagac gcatagacca acaggggagt ttatgtttga 240
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ggaggagttt ggccaagcct ttcctttga ggctcagggc gggctggcta acattgctat 360
attgaacaac aacttgaata ccttgatcca gcgttccaac cacactcagg ccaccaacga 420
tcccccatca ctcgag 436

<210> 394
<211> 159
<212> DNA
<213> Mus musculus

<400> 394
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ttccatatta catttccaaa tttactaaag tattttaact taatttttac actccagtca 120
cagatggaat taagaaacac cattcccttcc caactcgag 159

<210> 395
<211> 532
<212> DNA
<213> Mus musculus

<400> 395
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gttcattgga atgggggtct taggaggcat cttttataca actttggcaa cagaaatgat 360
aaaatcgaat caattgcaaa gggccaagga agaacttcag gaaaatgttt ccctacagct 420
gaagcacaat ctcaacagct ccaagaaaat caagaacctt tctgccatgc tgcaaagcac 480
agccacccag ctgtgccgag agctgtatag caaagaacca gagcacccta ta 532

<210> 396
<211> 725
<212> DNA
<213> Mus musculus

<400> 396
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tgcagcagtc tggagctgag ctgatgaagc ctggggcctc agtgaagctt tcctgcaagg 180
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gccttgagtg gattggagag attttacctg gaagtggtag tactaactac aatgagaagt 300
tcaagggcaa ggccacattc actgcagata catcctccaa cacagcctac atgcaactca 360
gcagcctgac aactgaggac tctgccatct attactgtgc agccttatcc tttgactact 420
ggggccaagg caccactctc acagtctcct cagccaaaac aacagcccca tcggtctatc 480
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tgcacacctt cccagctctc ctgcagtctg gcctctacac cctcagcagc tcagtgactg 660
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ctata 725

<210> 397
<211> 276
<212> DNA
<213> Mus musculus

<400> 397
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ttctcctcag acacagtggc actgcttatc tccaaatggt gtgatcgtct cctcagtgag 120
cggcggctcc cactgcgctg tgggtagtgt gtgactgtgg ctgtactgta tagtgaacat 180
agttggcata tctttgtttg aagtttgttg gtgattccac caaactggtg taaaaaacaa 240
aaacaaaaaa acccacaaac cacccaaaaa ctcgag 276

<210> 398
<211> 404
<212> DNA
<213> Mus musculus

<400> 398
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tcattttaca gaagaagaaa atgaggctta gtggatgtct tctcactatt agtgcacttg 120
gagcttttat ttatttcttt gagatagtat ctgcctattt agaccaggct gaccacagaa 180
tagaaggcac tcctccagcc ttagcctccg tgcctggagg agctgccata cccagcacct 240
taatttatgt catttattct agggaaaccc aaaactttct tgacagagta gaggagccag 300
atgaactaag gcagcaaaat acatggaact tgatttctct gtatgttggg aggactccaa 360
gcagtgagct cttcatggct agaccccagc cccaaaacct cgag 404

<210> 399
<211> 592
<212> DNA
<213> Mus musculus

<400> 399
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tgttgctgcc ccctttgatg atgatgacaa gatcgttggg ggctacatct gtgaggagaa 120
ttctgtcccc taccaggtgt ccttgaattc tggctaccac ttctgcggtg gctccctcat 180
cagcgaacag tgggtggtgt cagcaggtca ctgctacaag tcccgcatcc aggtgagact 240
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catccgccac cccaaataca acagccggac tctggacaat gacatcctgc tgatcaagct 360
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tacccagacg agctgcagtg cctggatgct cctgtgctga gccaggctga gtgtgaagcc 540
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<210> 400
<211> 435
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (332)

<400> 400
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gatgactccc catggtcagg aattacggaa agacccctcc atatattgcc ttggtctcca 180
aaagatgtca acacccgctt cctcctatat actaatgaga acccaaacaa ctttcaagaa 240
gttgccgcag attcatcaag catcagtggc tccaatttca aaacaaatag aaaaactcgc 300
tttattattc atggattcat agacaaggga gnagaaaact ggctggccaa tgtgtgcaag 360
aatctgttca aggtggaaag tgtgaactgt atctgtgtgg actggaaagg tggctcccga 420

actgggataca tcgag 435

<210> 401
<211> 581
<212> DNA
<213> Mus musculus

<400> 401
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cagtaaataa ctgttgttca taaaacagtt tcaactgttc caataaggac acagcatatt 180
cggtattgat ctgcctttcc tcttgagtgg acatgattgt attccattaa tatctccaag 240
aacagattag aaaagtccgt cttgatggaa ggtcaaatga atacttcaaa agcaaaggag 300
ggagttcact tgctgttatc tgcagcattc agaacagaac ccacacagcc gctctgaata 360
tcttgttaca ggctcacaat ctttgctagg tcatcctgag ctacagtttt tcaacagatt 420
ctccaaacat cctgctcaaa tttgcacctg ggaagctcat gaatagggaa aatacaggag 480
gtagattttg ttgcaacatc ttatgttcag taggtcttct gcagaactcg tccccggtcg 540
cccagctcac cgcgccgctc cgccgggcgg ttctccctat a 581

<210> 402
<211> 751
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (402)

<220>
<221> unsure
<222> (416)

<220>
<221> unsure
<222> (537)

<400> 402
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tgttttagca ctggctagtc aacaatagat agcattcggc tgaatgagga cttttaaagt 180
aaaagctttt gaaagtttta aatttgtaag tgtacttgaa tacaatttat cagtacatca 240
gatgtttttc caagttggta agttacccag cctctggagg aaggctcctg agacaaggaa 300
taaatcgtct tttcctttat aatggaacgt gagacctacc ctgcagggtt gtttagtaag 360
ctagccaaag tattggggat tgcagtttcc gtttgttggt tnattgtcca aacatngttc 420
tgtgaaagaa atgtaaaaaa atctttcctt gaaactgagt atgatagctc atacccttaa 480
tcctagcact ctgggaaggc aggagtgggt cgataaacct ctcctttaaa gaaaagnaca 540
gctacagaag tctcagaaga ggccagagca gtgtctatac ctatcacccct tcactcagag 600
cttgccgaag cacaattttc ataattccct ctaatcttta tcgttccagc gggagtctct 660
tgtctggctt catctttata gcatcccagg aaagggaaca ttaaacataa atgtgtgtga 720
agtgatagtt tggttctccc agcgccgcga g 751

<210> 403
<211> 114
<212> DNA
<213> Mus musculus

<400> 403
gaattcgcgg ccgcgtcgac attgaattct atacctgcct ctagcacaca tggttaagac 60
tctagcctgc tttaccattt acaattttgt aagtcaacag ctccctatag tgag 114

<210> 404
<211> 570
<212> DNA
<213> Mus musculus

<400> 404
gaattcgcgg ccgcgtcgac gggtcaggta tggaatcaac acaaacaaga tggagaacaa 60
gataaggcct gacttctggc cgtgcccagt ctgggccact gttggcacat agccgactgt 120
gtccatagga agctgaaaag cgctgtcctt tgcaatggac aggcaacacc tggttttcta 180
cactgaaccc ctaccaagaa gctcaaggtc aagctgtggc gggtggcctc ggctgtgccc 240
catccccgcc cacacccctg ccccctgccc agctctctgt gacagtcatg ccagtaaagg 300
ctcatacctt tttctgagtg cccaggctaa gaatgcatac cagtctgcca aaccttcatc 360
ccaaatagtg agaaatcgtc tttccacaag agactttagg gtcctaagag ttacagaaag 420
cctgactcag gcagaggaag cagcctactc cactgctcta ggaaaaaatt gcaacccctc 480
ccaacagccc ctgctcaaag cttttatcgc caaagcacaa gtaagttctc agacacagcc 540
tgcgtcgacg cggccgcgaa tctccctata 570

<210> 405
<211> 182
<212> DNA
<213> Mus musculus

<400> 405
gaattcgcgg ccgcgtcgac atcatggcta ccctgcgtgt cccactcctg gtggctctcg 60
tccttcttgc tgtggcaatt cagacctctg atgcaggtcc ctatggtgcc aatgtggaag 120
acagtatctg ctgccaggac tacatccgtc accctctgcc atcacgttta gtgagtcgta 180
tt 182

<210> 406
<211> 545
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (184)

<400> 406
gaattcgcgg ccgcgtcgac ccggaacccc aaccgctgca actctccgcg tccgaaatcc 60
agcatcccgc agtctgcgct cgcaccatgc agctaaagtg tccctgtttt gtgtccttgg 120
gaaccaggca gcctgtttgg aagaagctcc atgtttctag cgggttcttt tctggtcttg 180
gtcngttctt gctgctgttg agcagcctct gtgctgcctc tgcagagact gaagtcggtg 240
caatggtggg cagcaatgtg gtgctcagct gcattgaccc ccacagacgc catttcaact 300
tgagtggtct gtatgtctat tggcaaatcg aaaacccaga agtttcggtg acttactacc 360
tgccttacaa gtctccaggg atcaatgtgg acagttccta caagaacagg ggccatctgt 420
ccctggactc catgaagcag ggtaacttct ctctgtacct gaagaatgtc acccctcagg 480
atacccagga gttcacatgc cgggtattta tgaatacagt cacagagtta gtcgagatcc 540
tcgag 545

<210> 407
<211> 331
<212> DNA
<213> Gallus sp.

<400> 407
gaattcggcc aaagaggcct agtgttatat atactgggag aacaatagac tgtattcatt 60
gtggtattat ccaaagatct gttttctact gccctgactt aaagcagagt acctctgtgg 120
cctatctttc ccctttggcc ccaagatgac aataatagct gcaatcagtt gtgttttctt 180
attttccatt ctctgtgaaa caagtgcatt agtgttaccc aactccactg acctactcct 240
gtcaaacaat aatttcactg acattgagac ggctttggca gctcatctgg actcagcaaa 300

aattcccaaa gccaggcgga gtgcgctcga g 331

<210> 408
<211> 282
<212> DNA
<213> Gallus sp.

<220>
<221> unsure
<222> (141)

<220>
<221> unsure
<222> (143)

<220>
<221> unsure
<222> (145)

<400> 408
gaattcggcc aaagaggcct ataggcctct ttggccggcc aaagaggcgt actcagtgta 60
tatatgtaac tgtcattgat aagagttaca taggcataca gagggagaac atctgtatgt 120
tgcatgatag tttgtttaga ngnanaacta ggattgagtt actcaaatta gtgtttgtga 180
attatagaac taagctttac cttcaaatga aaatttcaaa ttactttttg gtttgtgcat 240
atttttttaa tttgtagttc tgtattagtc gtagcgctcg ag 282

<210> 409
<211> 311
<212> DNA
<213> Gallus sp.

<400> 409
gaattcggcc aagaggccta agaagaatgt ggacgaatcc aaaccttcgc tgcctttttag 60
ctctagcttt tttatgttta acaagcttag tgcatagtcg agagataggt tctcaagggg 120
acccccagaa tttaaaatgt gtcacgcaca atttacataa aatggtctgt acttgggaga 180
tctcatctga aagaagacat ggacaaactg agttttgtta cgctacagag tgttttaaaa 240
ctaaggagga gagagtcgag attccagtcc cagagagctc caccactgtg aaaataacca 300
catcactcga g 311

<210> 410
<211> 382
<212> DNA
<213> Gallus sp.

<400> 410
gaattcggcc aaagaggcct agtgcattta aatccaggcc atttgcagtt gctgacttca 60
cgcattacag aaagtgaatc caaacaccag gttggaacat ctttgatccc tggagaagtt 120
cagcctttgt cttcattggg tgttagacct tgtgtatata aatgataggt gcaaccgaag 180
gaggatgttc actctcatct tttttcttgt agcaatgcgt ctgtgcacgg aggaatgcag 240
ggttctaggc cactctgacc agtgctggat gccaccgttg ccatctccct catccgatta 300
caggagtaac atgttcatcc ctggggagga gtttcagtca caacagcagc agctgcagca 360
acagcagcag cagggcctcg ag 382

<210> 411
<211> 521
<212> DNA
<213> Gallus sp.

<400> 411
gaattcggcc aaagaggcct atcaaaatga agatactgaa atggactttg ggtatgctgt 60

tgttcctact gttgtctatc gggcgctgta cagaaccatc gaccctcaac aaaacatccc 120
aacggagaca tcctcgttcc acagatggtg gagaggaagg gaggaaatgc ggttacacct 180
tcttggtccc agaacaaaaa atcacagggc caatctgtgt gaataacgaa ccaggtactg 240
gtaacagaaa agatgaagtc acaagaatgg acatagagaa cttgaaggat gtgctgtcca 300
agcaaaaacg tgagattgac atcttgcagt tggtggtaga cgtggatgga aacattgtga 360
atgaagtaaa gttgctgagg aaagaaagcc gtaacatgaa ctctcgggtc actcaactct 420
atatgcaact cttgcatgag ataatccgaa agcgcgataa ctcacttgaa ctttcccaac 480
tggaaaataa agtcctcaat gtaacaacag aaagtctcga g 521

<210> 412
<211> 301
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (215)

<400> 412
gtttgggggg ttatttattt tgcctgtcct tatccctgct tggacacctg agcatctgat 60
tcctgtcccc ctggtgccat ctggcctggc tggagccagg aacaggaggg acacttcccc 120
agaatccgca tgtttcccca gtgattacac tccactgcca ccgtggtgcc tggctttaac 180
tcccacccct gctatgactc ctctctgcag agacncgact ggcggctcca gcagggacta 240
cctttcttat aaacccaggg ggaccacaca cacacacaca cacacacaca cattactcga 300
g 301

<210> 413
<211> 413
<212> DNA
<213> Homo sapiens

<400> 413
gaattcggcc aaagagcatc tgaagatcag ctattagaag agaaagatca gttaagtcct 60
ttggacctga tcagcttgat acaagaacta ctgatttcaa cttctttggc ttaattctct 120
cggaaacgat gaaatataca agttatatct tggcttttca gctctgcatc gttttgggtt 180
ctcttggctg ttactgccag gacccatatg taaaagaagc agaaaacctt aagaaatatt 240
ttaatgcagg tcattcagat gtagcggata atggaactct tttcttaggc attttgaaga 300
attggaaaga ggagagtgac agaaaaataa tgcagagcca aattctctcc ttttacttca 360
aactttttaa aaactttaaa gatgaccaga gcatccaaaa gagtgtggtc gag 413

<210> 414
<211> 496
<212> DNA
<213> Homo sapiens

<400> 414
gaattcggcc aaagaggcct agcttcagga tcctgaaagg ttttgctcta cttcctgaag 60
acctgaacac cgctcccata aagccatggc ttgccttgga tttcagcggc acaaggctca 120
gctgaacctg gctaccagga cctggccctg cactctcctg ttttttcttc tcttcatccc 180
tgtcttctgc aaagcaatgc acgtggccca gcctgctgtg gtactggcca gcagccgagg 240
catcgccagc tttgtgtgtg agtatgcatc tccaggcaaa gccactgagg tccgggtgac 300
agtgcttcgg caggctgaca gccaggtgac tgaagtctgt gcggcaacct acatgatggg 360
gaatgagttg accttcctag atgattccat ctgcacgggc acctccagtg gaaatcaagt 420
gaacctcact atccaaggac tgagggccat ggacacggga ctctacatct gcaaggtgga 480
gctcatgtac ccccgg 496

<210> 415
<211> 290
<212> DNA
<213> Homo sapiens

<400> 415
gaattcggcc aaagaggcct agaacaaccc agaaaccttc acctctcatg ctgaagctca 60
cacccttgcc ctccaagatg aaggtttctg cagcgcttct gtgcctgctg ctcatggcag 120
ccactttcag ccctcaggga cttgctcagc cagattcagt ttccattcca atcacctgct 180
gctttaacgt gatcaatagg aaaattccta tccagaggct ggagagctac acaagaatca 240
ccaacatcca atgtcccaag gaagctgtga tcttcaagac catggtcgag 290

<210> 416
<211> 529
<212> DNA
<213> Homo sapiens

<400> 416
gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggacccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
ggaagacatg aatgtcaagt ttttcaatag caacaaaaag aaacgagatg acttcgaaaa 480
gctgactaat tattcggtaa ctgacttgaa tgtccaacgc aaagtcgag 529

<210> 417
<211> 385
<212> DNA
<213> Homo sapiens

<400> 417
gaattcggcc aaagaggcct aggcaaacgc agaacgtttc agagccatga ggatgcttct 60
gcatttgagt ttgctagctc ttggagctgc ctacgtgtat gccatcccca cagaaattcc 120
cacaagtgca ttggtgaaag agaccttggc actgcttttct actcatcgaa ctctgctgat 180
agccaatgag actctgagga ttcctgttcc tgtacataaa aatcaccaac tgtgcactga 240
agaaatcttt cagggaatag gcacactgga gagtcaaact gtgcaagggg gtactgtgga 300
aagactattc aaaaacttgt ccttaataaa gaaatacatt gacggccaaa aaaaaaagtg 360
tggagaagaa agacggagag tcgag 385

<210> 418
<211> 415
<212> DNA
<213> Homo sapiens

<400> 418
gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggacccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg tcgag 415

<210> 419
<211> 439
<212> DNA
<213> Homo sapiens

<400> 419
gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180

ttctcttggc tgttactgcc aggacccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
ggaagacatg aatgtcgag 439

<210> 420
<211> 415
<212> DNA
<213> Homo sapiens

<400> 420
gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggacccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg tcgag 415

<210> 421
<211> 529
<212> DNA
<213> Homo sapiens

<400> 421
gaattcggcc aaagaggcct actgaagatc agctattaga agagaaagat cagttaagtc 60
ctttggacct gatcagcttg atacaagaac tactgatttc aacttctttg gcttaattct 120
ctcggaaacg atgaaatata caagttatat cttggctttt cagctctgca tcgttttggg 180
ttctcttggc tgttactgcc aggacccata tgtaaaagaa gcagaaaacc ttaagaaata 240
ttttaatgca ggtcattcag atgtagcgga taatggaact cttttcttag gcattttgaa 300
gaattggaaa gaggagagtg acagaaaaat aatgcagagc caaattgtct ccttttactt 360
caaacttttt aaaaacttta aagatgacca gagcatccaa aagagtgtgg agaccatcaa 420
cgaagacatg aatgtcaagt tttcaatag caacaaaaag aaacgagatg acttcgaaaa 480
gctgactaat tattcggtaa ctgacttgaa tgtccaacgc aaagtcgag 529

<210> 422
<211> 386
<212> DNA
<213> Homo sapiens

<400> 422
gaattcggcc aaagaggcct aaagacatta caccatctga attgcctgca aacccaggtt 60
gtgtgcattc aaaagagcat tctattaaag ctaccttaat ttggcgctta tttttcttaa 120
tcatgtttct gacaatcata gtgtgtggaa tggttgctgc tttaagtgca ataagagcta 180
actgccatca agagccatca gtatgtcttc aagctgcatg cccagaaagc tggattggtt 240
ttcaaagaaa gtgtttctat ttttctgatg acaccaagaa ctggacatca agtcagaggt 300
tttgtgactc acaagatgct gatcttgctc aggttgaaag cttccaggaa ctgaatttcc 360
tgttgagata taaaggcccc gtcgag 386

<210> 423
<211> 443
<212> DNA
<213> Homo sapiens

<400> 423
gaattcggcc aaagagtctg gatggcatct acttcgtatg actattgcag agtgcccatg 60
gaagacgggg ataagcgctg taagcttctg ctggggatag gaattctggt gctcctgatc 120
atcgtgattc tgggggtgcc cttgattatc ttcaccatca aggccaacag cgaggcctgc 180
cgggacggcc ttcgggcagt gatggagtgt cgcaatgtca cccatctcct gcaacaagag 240

ctgaccgagg cccagaaggg ctttcaggat gtggaggccc agccgccacc tgcaaccaca 300
ctgtgatggc cctaatggct tccctggatg cagagaaggc ccaaggacaa aagaaagtgg 360
aggagcttga gggagagatc actacattaa accataagct tcaggacgcg tctgcagagg 420
tggagcgact gagaagagtc gag 443

<210> 424
<211> 455
<212> DNA
<213> Homo sapiens

<400> 424
gaattcggcc aaagaggcct atctgaagat cagctattag aagagaaaga tcagttaagt 60
cctttggacc tgatcagctt gatacaagaa ctactgattt caacttcttt ggcttaattc 120
tctcggaaac gatgaaatat acaagttata tcttggcttt tcagctctgc atcgttttgg 180
gttctcttgg ctgttactgc caggacccat atgtaaaaga agcagaaaac cttaagaaat 240
attttaatgc aggtcattca gatgtagcgg ataatggaac tcttttctta ggcattttga 300
agaattggaa agaggagagt gacagaaaaa taatgcagag ccaaattgtc tccttttact 360
tcaaactttt taaaaacttt aaagatgacc agagcatcca aaagagtgtg gagaccatca 420
aggaagacat gaatgtcaag tttttcaata gcaag 455

<210> 425
<211> 365
<212> DNA
<213> Homo sapiens

<400> 425
gaattcggcc aaagaggcct aggtggaaat tccagcaaga atagaggtga agacaagcca 60
ccaggactca ggagggaaac gctgaccatt agaaacctct gcataagacg ttgtaaggag 120
gaaaataaaa gagagaaaaa cacaaagatt taaacaagaa acctacgaac ccagctctgg 180
aaagagccac cttctccaaa atggatatgt ttcctctcac ctgggttttc ttagccctct 240
acttttcaag acaccaagtg agaggccaac cagacccacc gtgcggaggt cgtttgaatt 300
ccaaagatgc tggctatatc acctctcccg gttacccccca ggactacccc tcccaccttg 360
tcgag 365

<210> 426
<211> 557
<212> DNA
<213> Homo sapiens

<400> 426
gaattcggcc aaagaggcct acaattataa aatgtcagct tttaaggaaa actgtggaat 60
atattttcca gaaataaaaa gagatccagg cagatattta catagttgtc ctgaatctgt 120
gaaaaaatgg cttcgacagc taaagaatgc tgggaaaatt cttctgttaa ttaccagttc 180
tcacagtgat tactgtagac ttctctgcga atatattctt gggaatgatt ttacagacct 240
ttttgacatt gtgattacaa atgcattgaa gcctggtttc ttctcccact taccaagtca 300
gagacctttc cggacactcg agaatgatga ggagcaggag gcactgccat ctctggataa 360
acctggctgg tactcccaag ggaacgctgt ccacctctat gaacttctga agaaaatgac 420
tggcaaacct gaacccaagg ttgtttattt tggtgacagc atgcattcag atattttccc 480
agctcgtcac tatagtaatt gggagacagt cctcatcctg gaagaactca gaggggatga 540
aggcacgagg agtcgag 557

<210> 427
<211> 468
<212> DNA
<213> Homo sapiens

<400> 427
gaattcggcc aaagaggcct aacaggatca acacatttca tctgggcttc ttaaatctaa 60
atctttaaaa tgactaagtt ttcttccttt tctctgtttt tcctaatagt tggggcttat 120
atgactcatg tgtgtttcaa tatggaaatt attggaggga aagaagtgtc acctcattcc 180

aggccattta tggcctccat ccagtatggc ggacatcacg tttgtggagg tgttctgatt 240
gatccacagt gggtgctgac agcagcccac tgccaatatc ggtttaccaa aggccagtct 300
cccactgtgg ttttaggcgc acactctctc tcaaagaatg aggcctccaa acaaacactg 360
gagatcaaaa aatttatacc attctcaaga gttacatcag atcctcaatc aaatgatatc 420
atgctggtta agcttcaaac agccgcaaaa ctcaataaac atgtcgag 468

<210> 428
<211> 333
<212> DNA
<213> Homo sapiens

<400> 428
gaattcggcc aaagaggcct acaagcttct aggacaagag ccaggaagaa accaccggaa 60
ggaaccatct cactgtgtgt aaacatgact tccaagctgg ccgtggctct cttggcagcc 120
ttcctgattt ctgcagctct gtgtgaaggt gcagttttgc caaggagtgc taaagaactt 180
agatgtcagt gcataaagac atactccaaa cctttccacc ccaaatttat caaagaactg 240
agagtgattg agagtggacc acactgcgcc aacacagaaa ttattgtaaa gctttctgat 300
ggaagagagc tctgtctgga ccccaaggtc gag 333

<210> 429
<211> 307
<212> DNA
<213> Homo sapiens

<400> 429
gaattcggcc aaagaggcct agctgacact cgagcccaca ttccgtcacc tgctcagaat 60
catgcaggtc tccactgctg cccttgctgt cctcctctgc accatggctc tctgcaacca 120
gttctctgca tcacttgctg ctgacacgcc gaccgcctgc tgcttcagct acacctcccg 180
gcagattcca cagaatttca tagctgacta ctttgagacg agcagccagt gctccaagcc 240
cggtgtcatc ttcctaacca agcgaagccg gcaggtctgt gctgacccca gtgaggtgtg 300
ggtcgag 307

<210> 430
<211> 348
<212> DNA
<213> Homo sapiens

<400> 430
gaattcggcc aaagaggcct acaaaacgct gattaaaaga agcacggtat gatgaccaaa 60
cataaaaagt gttttataat tgttggtgtt ttaataacaa ctaatattat tactctgata 120
gttaaactaa ctcgagattc tcagagttta tgcccctatg attggattgg tttccaaaac 180
aaatgctatt atttctctaa agaagaagga gattggaatt caagtaaata caactgttcc 240
actcaacatg ccgacctaac tataattgac aacatagaag aaatgaattt tcttaggcgg 300
tataaatgca gttctgatca ctggattgga ctgaagatgg cagtcgag 348

<210> 431
<211> 359
<212> DNA
<213> Homo sapiens

<400> 431
gaattcggcc aaagaggcct aatttttttt atttagtttt ccttgttgga attattggaa 60
gttgttttgc aacctgggct tttatacaga agaatacgaa tcacaggtgt gtgagcatct 120
acttaattaa tttgcttaca gccgatttcc tgcttactct ggcattacca gtgaaaattg 180
ttgttgactt gggtgtggca ccttggaagc tgaagatatt ccactgccaa gtaacagcct 240
gcctcatcta tatcaatatg tatttatcaa ttatcttctt agcatttgtc agcattgacc 300
gctgtcttca gctgacacac agctgcaaga tctaccgaat acaagaaccc ggagtcgag 359

<210> 432
<211> 922

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (787)

<220>
<221> unsure
<222> (803)

<220>
<221> unsure
<222> (817)

<220>
<221> unsure
<222> (853)

<400> 432
gaattcggcc aaagaggcct aaattggagg catgatgaag actctgctgc tgtttgtggg 60
gctgctgctg acctgggaga gtgggcaggt cctgggggac cagacggtct cagacaatga 120
gctccaggaa atgtccaatc agggaagtaa gtacgtcaat aaggaaattc aaaatgctgt 180
caacggggtg aaacagataa agactctcat agaaaaaaca aacgaagagc gcaagacact 240
gctcagcaac ctagaagaag ccaagaagaa gaaagaggat gccctaaatg agaccaggga 300
atcagagaca aagctgaagg agctcccagg agtgtgcaat gagaccatga tggccctctg 360
ggaagagtgt aagccctgcc tgaaacagac ctgcatgaag ttctacgcac gcgtctgcag 420
aagtggctca ggcctggttg gccgccagct tgaggagttc ctgaaccaga gctcgccctt 480
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gcacatgctg gatgtcatgc aggaccactt cagccgcgcg tccagcatca tagacgagct 600
cttccaggac aggttcttca cccgggagcc ccaggatacc taccactacc tgcccttcag 660
cctgccccac cggaggcctc acttcttctt tcccaagtcc cgcatcgtcc gcagcttgat 720
gcccttctct ccgtacgagc ccctgaactt ccacgccatg ttccagccct tccttgagat 780
gatacangag gctcagcagg ccntggacat ccacttncac agcccggcct tccagcaccc 840
gccaacagaa ttnatacgag aaggcgacga tgaccggact gtgtgccggg agatccgcca 900
caactccaca ggcaacctcg ag 922

<210> 433
<211> 311
<212> DNA
<213> Homo sapiens

<400> 433
gaattcggcc aaagaggcct agtgtgagcc accacgcccg gcctagagtg ttttctttaa 60
tcttttccag ttatttctac ttttttctgt ccgagcttat cctttgggct ttcccccaat 120
aggactgttg agtcagttac tgacttagca cagtgaatat gcgtcctaat acattcttta 180
ttttttattt tattttattt ttgagacgga gtctcgctct gttgccaggc tggagtgcag 240
tggcgcgatc tcggctcacc acaacctctg actccctggt tcaagcgatt ctcctgcctc 300
agcctctcga g 311

<210> 434
<211> 513
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (275)

<220>

<221> unsure
<222> (345)

<220>
<221> unsure
<222> (405)

<220>
<221> unsure
<222> (461)

<400> 434
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gattaaggat aaagaatgga aggccccgact ctagagtatg agagaggctt cagttacctt 120
tgggttggga taggacaggc tacaatggcc aggatacaag atgcaatggt tgactacttc 180
atggagggga gaggaggcag gcaagcactg ctattggctg gctgtgggca gagtaaatgc 240
ttctacttgt aaacaaatat aacttcttgc cagtnaactt gttcccccca ggatctgtct 300
gcatctcctt attttcctct atagtcatca aggagaacta aaaanattgg gataagccac 360
agagatgtca ttgataatag tagtaagagg agctaatatt tattngacat ctaatctgtg 420
cctgcatgta ggtaatccta ttactcattt tagaatgaaa nagacaaatg agtaatcagg 480
ttgatttatt tactcaaagt cacggctctc gag 513

<210> 435
<211> 507
<212> DNA
<213> Homo sapiens

<400> 435
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tcactctccc gttctgtcag ttcacatgaa acattctctg ccttcctcac tcccatacgg 120
ttggctttca ctgtctgttt ctgccttcct cactctcaca cagtcagctc tcactcaaca 180
tttcctgcct cccgccctcc catattctgt cacttctcac tcagtattcc cggccgtcct 240
gaccctgagt gttcccgggt catgtcagtt cccaatgaac acttcctggc ctccattctc 300
actacgcagc tcctcttcct cgcacaaatc ctgttgcttc tcattcaaca ctctctgcct 360
tcctcacttt ccttgtgtta gttctcagga acatttccag ttcttttcca tcaatcctgt 420
tttgtctccc aatcttctct ttctgccctg tcaaatccta aggatgaccc tcctggaaca 480
atgacagtgt tttaccaccc actcgag 507

<210> 436
<211> 513
<212> DNA
<213> Homo sapiens

<400> 436
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gcctgtaatc ccagcacttt gggaggctga gctgggtaga tcacctgagg tcaggagttc 120
gagaccagcc tgaccaacat ggagaaaccc cgtctgtact aaaaatacaa aattaacagg 180
gcgtggtgtc atgtgcctgt aatcccagct acttgggagg ctgaggcggg agaatcgctt 240
gaacccggga ggcgaagttt gcagtgagcc gatatcgtgc cattgcactc cagcctgggc 300
aacaagagtg aaactcagtc ctcaataaat aaataaataa ataaagcaaa ttctcatgaa 360
gcaaatggta ataatcttaa tttattggaa gggccacaag aaagggggaa aagaacaact 420
aaaaaaaaac tttttctacc aacattaact tgtcctaaca atcaacttat ttttgcttta 480
atggttcctc ctcttctcaa atggtggctc gag 513

<210> 437
<211> 460
<212> DNA
<213> Homo sapiens

<400> 437

gaattcggcc ttcatggcct acaccagtga gtcatcaggg ttcccagggc tcttggactt 60
cccagtactt cctctaaact acttcccttt cacttccccg accatctaga tataacatgt 120
cgtctttcct ccagcagctt gaactttctt cctagccctt cacttaacct ttgccacttc 180
ccttacaacc cactctctct ctgtcacttt ttcaaaatga tcttcttcca cagaagcctg 240
gagacactga agttgtccct ggccaagtgg acacagggac tatggccccc atgatcatgt 300
cttcctcctc ttccctccct gcagtaataa ctgagccagc aggcccagat ttggggaccc 360
cattcaccag ccgcctaccc ccagaacttc aggtcctaaa ggacgaacag gcccatcggt 420
tggcccccaa gggtaatcag tctcgcacct tgagctcgag 460

<210> 438
<211> 402
<212> DNA
<213> Homo sapiens

<400> 438
gaattcggcc ttcatggcct agttacaaaa tggaaagcag aggtcattcc atcattcatg 60
gtggccatca gacaacaaca cagcagttgc ttaggagaag catgggtctt cttcgtacgc 120
acaactgaga gaaatttccc ttaaagtgga cactgagtta gatgatacaa tgaatctaat 180
ggctacacat aatcatgaaa atcatggggc cctttattgt aatgtttctc atgcgggcta 240
acatgcgtag ttctagggaa aatatgatgc tgtccaaaca tacagctatt tggtttggct 300
tatctaaaga taaaatacat agtatccaga gaaatagatg aactgtatgt cctccataca 360
gtctcccata aatattattt ctttttgcag ctgaccctcg ag 402

<210> 439
<211> 374
<212> DNA
<213> Homo sapiens

<400> 439
gaattcggcc ttcatggcct aggaagagga taaaatggaa gatcaaaaca ttatccaggc 60
tccacagaaa gaagtaggaa agggctgcga tcctgatgcc caccccaaga gcacaggtgt 120
cttccaggat gaagagctgc ttttcagcca caagctccaa aaggacaatg acccagatgt 180
tgaccttttt gctggcacca aaaaaaccaa gctgttagag ccaagtgttg ggagcctgtt 240
tggggatgat gaagatgatg atcttttcag ctctgccaag tcccagcctt tggtacaaga 300
gaaaaagaga gtagtgaaaa aagaccactc tgttaactct ttcaaaaacc agaaacatcc 360
tgaatccact cgag 374

<210> 440
<211> 281
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (48)

<400> 440
gaattcggcc ttcatggcct aggtgtggaa agaaaacaaa acaaaacnag aaatctcttg 60
taaaatattc caggtcaaag ttgtctcctc tccaaacctt gcagaagcac ctttcttctc 120
ttcagcgcac tgttttggga ctgtttatgc agcagatgta agtagacaac atggactcca 180
tgtgacatgc ctctaatagt aaagataaag tattactgag gttaaaaata aaaattgagt 240
agtattaatt taaagtgcac catcaggaca acaaactcga g 281

<210> 441
<211> 306
<212> DNA
<213> Homo sapiens

<400> 441
gaattcggcc ttcatggcct aagagttgtg tggttcctcc cattggtttc taggctgttt 60

gttgtttgta tttgtattga taggagacct acagtggcca cagctgattc catggaattt 120
ttttagcatc tgtattcaaa atattctttt tagactgtga gaataaaacc aaaacaaaaa 180
actctagctt tgaaagatac taaattgtag atattataga gtaggttttt gttttgtttt 240
gttttttga gacaaagtct agctagcttt gttgcctagg ctggagtgta atgacaccat 300
ctcgag 306

<210> 442
<211> 273
<212> DNA
<213> Homo sapiens

<400> 442
gaattcggcc ttcatggcct agaaataata aaaagtactg aacaggaagg gcttctggag 60
acttctccag agattgacac caagcatttc attagggccc actttgtgac tattctgtta 120
gtcacaaatc taccaaatta tcccatagtt taacccatta ctccttaaat atttatgtgt 180
ataggaatta cctggctata ttgttaaagt gcagttttct gtaggtcttc ccctctctcc 240
tcccctctac tggtctcccc cccccaactc gag 273

<210> 443
<211> 334
<212> DNA
<213> Homo sapiens

<400> 443
gaattcggcc ttcatggcct acattagtgt agatttctgc aggaacatct atccaggtga 60
gaggtcgaat aagtgcagga aaaggcacat aagcccaata agaataattt tgtgtagcag 120
gtaaatcagt gtgagaggaa actggtgaga cagaaagtat aaggaggaga ataattaaat 180
aaaacccagt gtaagcgaga ttgagtgctg aaggaggaag agaagaacag agggatgtta 240
ttgtcaggct aatagaaatc gctgtcgcct taatccaagc ctacgttttc acacttctag 300
taagcctcta cctgcacgac aacacagact cgag 334

<210> 444
<211> 300
<212> DNA
<213> Homo sapiens

<400> 444
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atgtatacat ttccagtttt aagattttgc gagggtctta taagaaaaca aaaattccct 120
caggctatag aattatgttg tcatatatca gaaaagtact gatgtatcca tttatatcca 180
atgcgcacca caccggcaca ttgtgattta attcaccgct tgaatctata tttctaacca 240
cagtgacttc agtaaaaata ccgtataatg aacatttcag cttcttctta cttactcgag 300

<210> 445
<211> 309
<212> DNA
<213> Homo sapiens

<400> 445
gaattcggcc ttcatggcct agtttgacca tttgtagtat acacagtgaa acttgattct 60
ctgttgcata aaacactata tttttttgga aatgttactg tccaaaagcc tcttccctcc 120
ctttcctttt cctatgtact tccttcatac ttgctttact gatcagccag gcaatagcca 180
tccaagagct agagcatgaa acagggccct ttccaagtag gctctgggtg tcctaagcca 240
gcgtgtgccc tctggtttag tgagtgtaat agagtccctg gcacctttct ttgcaaatga 300
ggactcgag 309

<210> 446
<211> 177
<212> DNA
<213> Homo sapiens

<400> 446
gaattcggcc ttcatggcct aattgaattc tagacctgcc tggggctctg tctttcattg 60
tgggagagag atgggggagt aatttttgcg tctctggaca gagccccagg gccgggaaag 120
ggcacacaat ggggttcttg atgctttctc ccttggctaa ccagaagatc actcgag 177

<210> 447
<211> 325
<212> DNA
<213> Homo sapiens

<400> 447
gaattcggcc ttcatggcct aattgtatcg taacctttaa accaatctcc agctgtatgg 60
gagatggtac ttttactatc cccattttat aaatgaggaa attgaggtat agagcagtaa 120
aataatttc ccggttaagc aggtaagtgc tacaactgtg attgaccttt gaacctgacc 180
ccagagcact gatgtaatct gtctgtaccc aaaatggttt cagtttatct ttattcaggc 240
gcagttcaaa gaatcttatc ctttgctttt taactactct attctccctg gtgactagga 300
tatcttatac cccсttgagc tcgag 325

<210> 448
<211> 299
<212> DNA
<213> Homo sapiens

<400> 448
gaattcggcc ttcatggcct aaatttaaat ggtgtataca ttcttcaacc tgaagttatt 60
tcagcatcag ctgatggaag taaaataaca gctcaagact cattggtggt acctattttt 120
cagatgtttc aagatagtgg ttttcagaaa aactggtctt ggaactcatt tttcaagatt 180
catcctcaag tagtaaatcc tgtgcaacag ccaggacaca gattgcttat tctctggaga 240
atactgtaca aaaaaacttt atggtatcaa gcacaattaa atcgaagagt tcctgaagc 299

<210> 449
<211> 326
<212> DNA
<213> Homo sapiens

<400> 449
ctcgagactc tgggagttca acaccaacct agcaacatga caaaaccccg cctctacaaa 60
cataaataaa aaacaaaaat cattaacctt gagtgagtca agttcatctg cagactgaaa 120
aaaataaagt gtaacagaat tttgatttaa aaaacgcttt caaaaaagca tttcaaaatg 180
ctctaagtat gtttcaaaaa tacacttaaa aatatgtttc caacacactg aagggattta 240
actaagatcc acaattacag ttacgataca aactgtaagc taaaaggcag caacttaagc 300
tgagacagtt actaacatcc ctcgag 326

<210> 450
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (164)

<220>
<221> unsure
<222> (301)

<220>
<221> unsure
<222> (380)

<400> 450
gaattcggcc ttcatggcct aggggaagct tgttaaatat gttagatatt taaaacactt 60
aatattatga agtagaattc cagattataa taagttattt agccaaaatg atgactcaaa 120
aatttttaaa aaggcaaaaa cctttttca ttaagagaga agantcagct ttccaatcta 180
ctcctgtctt aactgcctgt tttttggaag tttattctca aggtgcaaac aaaagtcttt 240
aattattctt tcctattaca tgaacatctt attcaaggga gagaaagcca aaattcaccc 300
ntgatttagt ctacggttta catcaacccc aactttttaaa tgaaacctta tagatgattc 360
tctctgatct cagccagttn tctcgag 387

<210> 451
<211> 318
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (141)

<400> 451
gaattcggcc ttcatgccta caggaatgca ttcttgacat ttccgaacac acattaagtg 60
aaaatgactt agaagaacta agggtagatc actataaatg taacatacag gcatctgtac 120
atgtttctga tttcagtaca nataatagtg gatctcaacc aaaacagaag tcagatactg 180
tgctttttcc agcaaaggat ctcaaggaaa aggaccttca ttcaatattt actcatgatt 240
ctggtctgat aacaataaac agttcacaag agcacctaac tgttcaggca aaggctccat 300
tccatactcc tcctcgag 318

<210> 452
<211> 467
<212> DNA
<213> Homo sapiens

<400> 452
gaattcggcc ttcatggcct aagaaactac agtaaactgt catccatgat cccactgcag 60
agaaaaccat tgccgacatt tttgagcatt tcctaccagt tcccccccttc caaagttgaa 120
ttatttataa accgtcactc tgaggaatgt tgattgtgtt cgtaagaaaa ctcatggctt 180
aggagccaga gtaagcagga ctactatgtt aaacagcagg tttgactaat atattttcttt 240
aattgcatca aacactagtg ttatattaag tcaaaagtct tcacagatta tttttctcaa 300
gaggatttca gtgcttcagt gtgcacatta atatcagttc cacttgcttt tcagtgatgt 360
catagtaatg agacgttata agtgaataca aatctacctc taaagagatt attgatttgt 420
tttattttac ttaagatttg aattccaaat ccagtacaca gctcgag 467

<210> 453
<211> 322
<212> DNA
<213> Homo sapiens

<400> 453
gaattcggcc ttcatggcct agcttcagtt ttcattcatc ctcctgctca gcactgtcag 60
ccaagagctt actcagcaga caccacatac tgcagcagtt cctagtgaga aaatctgtgc 120
cactagaaaa tgcttcacct ccatttcctc acctgggcag ttctctgttt aaaattgtgg 180
gctgatttgg tcttcctctc ctcctcccac tgttactgcc ctgcagccct tgttcaggtg 240
tacagaccct tattctggcc tctagtgtcc ttgtctgtca tgacacaccc ttccgcccaa 300
atacctctga ccccaactcg ag 322

<210> 454
<211> 263
<212> DNA
<213> Homo sapiens

<400> 454

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ttattccctg tctgtgtgca gaggggattc aacttcaatt tttctgcagt ggctctgggt 120
ccagcccctt acttaaagat ctggaaagca tgaagactgg gctttttttc ctatgtctct 180
tgggaactgc agctgcaatc ccgacaaatg caagattatt atctgatcat tccaaaccaa 240
ctgctgaaac ggcagcactc gag 263

<210> 455
<211> 536
<212> DNA
<213> Homo sapiens

<400> 455
gaattcggcc ttcatggcct aggtggtggg tgctccgcct gcactaggcg caccccttgca 60
gaggtggctg gttgctcttt gaaggtcccc ctggatggta atcctggctg ctttctgcac 120
ttgtatataa agtcctcccc aagatggcct gtggtctgcc tcttggcaac caagaagccc 180
gcagtgccat gtgacacctg aggcatggac tggagcccca aaggcagggt acacccttct 240
cctgaacctg ctttttcttt cctctatatg gctccatttg tggcaaagtt gttgcactga 300
aacttgtgca tgctgggcaa ggacaagctg gctcaaagag caaccagcca cctctgcaaa 360
ggtgtagcag gagccggtgt accagtcacc aattagcgtc cggacatgta catcacttct 420
tccaccctaa aggtagggcc acagtgccat ctgcttttct taaggcctct gctccatcag 480
caataaggtg gcagacactc aggctgtggg aacctggcca tccccacttc ctcgag 536

<210> 456
<211> 757
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (193)

<220>
<221> unsure
<222> (345)

<400> 456
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cacacggaga gacctggccg aggtcccagc cagcatcccg gtcaacacgc ggtacctgaa 120
cctgcaagag aacggcatcc aggtgatccg gacggacacg tacaagcacc tgcggcacct 180
ggagattctg canctgagca agaacctggt gcgcaagatc gaggtgggcg ccttcaacgg 240
gctgcccagc ctcaacacgc tggagctttt tgacaaccgg ctgaccacgg tgcccacgca 300
ggccttcgag tacctgtcca agctgcggga gctctggctg cgganc aacc ccatcgagag 360
catcccctcc tacgccttca accgcgtgcc ctcgctgcgg cgcctggacc tgggcgagct 420
caagcggctg gaatacatct cggaggcggc cttcgagggg ctggtcaacc tgcgctacct 480
caacctgggc atgtgcaacc tcaaggacat ccccaacctg acggccctgg tgcgcctgga 540
ggagctggag ctgtcgggca accggctgga cctgatccgc ccgggctcct tccagggtct 600
caccagcctg cgcaagctgt ggctcatgca cgcccaggta gccaccatcg agcgcaacgc 660
cttcgacgac ctcaagtcgc tggaggagct caacctgtcc cacaacaacc tgatgtcgct 720
gccccacgac ctcttcacgc ccctgcaccg cctcgag 757

<210> 457
<211> 897
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (7)

<220>

<221> unsure
<222> (212)

<400> 457
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cgacagttcc agcactcgcc gagaccggcg gagaaaggca gctgagcccg gagaagagcg 120
aaatatgggg acccgggcta aaagcagacg tcgtccttcc cgcccgctat ttctatattc 180
aggcagtgga tacatcaggg aataaattca cntcttctcc aggcgaaaag gtcttccagg 240
tgaaagtctc agcaccagag gagcaattca ctagagttgg agtccaggtt ttagaccgaa 300
aagatgggtc cttcatagta agatacagga atgtatgcaa gctacaaaaa tctgaaggtg 360
gaaattaaat tccaagggca acatgtggcc aaatccccat atattttaaa agggccggtt 420
taccatgaga actgtgactg tcctctgcaa gatagtgcag cctggctacg ggagatgaac 480
tgccctgaaa ccattgctca gattcagaga gatctggcac atttccctgc tgtggatcca 540
gaaaagattg cagtagaaat cccaaaaaga tttggacaga ggcagagcct atgtcactac 600
accttaaagg ataacaaggt gaagatgcca gatgtggagc tctttgttaa tttgggagac 660
tggcctttgg aaaaaaagaa atccaattca aacatccatc cgatcttttc ctggtgtggc 720
tccacagatt ccaaggatat cgtgatgcct acgtacgatt tgactgattc tgttctggaa 780
accatgggcc gggtaagtct ggatatgatg tccgtgcaag ctaacacggg tcctccctgg 840
gaaagcaaaa attccactgc cgtctggaga gggcgagaca gccgcaaaga tctcgag 897

<210> 458
<211> 520
<212> DNA
<213> Homo sapiens

<400> 458
gcggggatcg acaagctgcc catcgaggag acgctggagg acagcccgca gacaaggtct 60
ttactaggtg tatttgaaga agatgccaca gctatttcca actatatgaa ccagttgtat 120
caagctatgc atcggattta tgatgcacag aatgaattaa gtgcagcaac acacctgacc 180
tcaaaacttt taaaagaata tgaaaaacag cgttttccat tgggaggtga tgatgaagtt 240
atgagctcta cattgcaaca gttttcaaaa gttatagatg agcttagctc ttgtcatgca 300
gtgctttcaa ctcaacttgc tgatgccatg atgttcccca ttacccagtt taaagaaaga 360
gatctgaaag aaatactaac attaaaggaa gtatttcaga ttgcaagtaa tgatcatgat 420
gctgcgatta atagatatag ccgtttatca aaaaaaagag aaaatgacaa ggtgaagtat 480
gaagtaacag aagatgtgta cacatccaga aagactcgag 520

<210> 459
<211> 525
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (53)

<220>
<221> unsure
<222> (57)

<400> 459
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ttttaagggc tttttctcag tcaatagttt gtacaaactg gttagtttaa cttcattacc 120
catttcatta aagttgatgg gtcgtgtgat gagatgcatt taaggccgat agtgatagat 180
gttttttta tttcttgaac acaggctttg tctgaatgat gttcttttat ctcttgaaca 240
caagctttga atgataacta caggttttaa gtgctgttac attaatacca taatgtgatg 300
tgttagaaac aaagggatat ttcaaaggta gatatttgaa aattctctag tctcaatatg 360
tatgtgtatt gaatatactc taaaaataaa tgtgcaattt gctagtagga caatgcagtg 420
actgactagc attaggtatg tttcttttat atcctagcta tgtcccactt tcttctaagt 480
gcaatccttt catgttcact tgctgtttta ccccatctac tcgag 525

<210> 460
<211> 617
<212> DNA
<213> Homo sapiens

<400> 460
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cactaataca ctaatagtaa gattaagtta ggcagtcttc taccaaatgt gtaatggaga 120
ttgcctcaaa attgtgtcca cataatccac gctcatcttg caaagcgcta tttcaggcac 180
atcattggaa tacaggaagt agccctgcac ctgccagtga gctcgccatt cactgattgg 240
aagagtgacc tggcatcttg gaaatcattg tgtgtcttca ggagaatgtg cagtgtcttg 300
taacaactaa ttataatgca aattagggct acattgtaat ctgctttgtt aatgaaaatg 360
ataaaacaga atattgacaa gctaggacac ctgtggtatc tttaattgta tctccttcag 420
aagtttgctt cttatggtat aataaagtat ggaagaatat tgagtatatg tttactctgg 480
gcctgggaga acttaacttt ctagagcagt ttgttgactt gtgtgcaatg gggagaggta 540
ccatgatgac actcacaggg agccactgtt cactgacact tggaagcggt cattgttaat 600
atcacggacg actcgag 617

<210> 461
<211> 886
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (199)

<220>
<221> unsure
<222> (232)

<220>
<221> unsure
<222> (249)

<400> 461
gaattcggcc aaagaggcct acagcacttc tttggaaaga ggaagaatgc aaagttcagt 60
atttcaatac tttgtatttt acttgaaatt acccttagta gcatcttttt tttcctgtct 120
gaaagctttt gtgtggatga gaagggacat ttcatttcct cccttaacaa agtgtcattc 180
tgaggttctc atgtgtgtnt ttggaaatag agatactggt tttgtagagt tngcctttgg 240
gtatgtttnc tttttttctt aaatctccaa ggaagagaac tgactaaaat agtaggaaca 300
tgaaagtatt aaatgccaat taatttgttg tagtaaagta tcttcattag cgttatactc 360
catcatatct ggtgtaaact gctcacagaa aaccctatga aaccaaaggg ggaccattca 420
ggtctaaaaa gcgacaggtc cgagactggg tctgtcacct gggcattttc aaagaggaca 480
ttttgaagaa tttgcatatt cagattttta aaatgcactt aacatacttc attacagatt 540
tcttgggtag ggaggatggg ataggccagg gatgggatgg aatcagttct gcctgggaaa 600
ctaatccgaa tcatttacct ttctgtatta accttggcct gtcctaaaaa gagaacgact 660
gtttcatcat gagttgctct gagttttgtt aatgtttgtg ttggtggatt gacggttaaa 720
tgaagcattt agctggaata tgaactttgg gagttttcat gttgtcctgg atttctcttt 780
gtaaaccttt aaaccttagc ccctggttga ttgtgttaaa cccattatga gaatgttatt 840
taaagttgta ttataattgc aacctccatt ctagacctgc ctcgag 886

<210> 462
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (146)

<400> 462
gaattcggcc aaagaggcct agtcaacatg aaggctctca ttgttctggg gcttgtcctc 60
ctttctgtta cggtccaggg caaggtcttt gaaaggtgtg agttggccag aactctgaaa 120
agattgggaa tggatgaccc ctggtngaac cctacagtcc cctactcaca acccctacac 180
tctcctaccc atgacccctg gcagaaccct acagtcccct actcacgacc cctacactct 240
cctacccatg accccctggtg gaaccctaca gtcccctact cacgacccct acactctcct 300
acccatgacc cctggcagaa ccctacagtc ccctactcac gaccccctaca gtcccctact 360
catgacccct ggagtaaccc tacagtccca ctcgag 396

<210> 463
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (259)

<220>
<221> unsure
<222> (386)

<400> 463
gaattcggcc aaagaggcct aagaaatatg actctcttgg tagagaagct tgagacacta 60
gacaaaaaca atgtccttgc cattcgccga gaaatcgtgg ctctgaagac caagctgaaa 120
gagtgtgagg cctctaaaga tcaaaacacc cctgtcgtcc accctcctcc cactccaggg 180
agctgtggtc atggtggtgt ggtgaacatc agcaaaccgt ctgtggttca gctcaactgg 240
agagggtttt cttatctana tggtgcttgg ggtagggatt actctcccca gcatccaaac 300
aaaggactgt attgggtggc gccattgaat acagatggga gactgttgga gtattataga 360
ctgtacaaca cactggatga tttgcnattg tatataaatg ctcgag 406

<210> 464
<211> 395
<212> DNA
<213> Homo sapiens

<400> 464
gaattcggcc aaagaggcct agaacctctc cacgcgcacg aactcagcca acgatttctg 60
atagattttt gggagtttga ccagagatgc aaggggtgaa ggagcgcttc ctaccgttag 120
ggaactctgg ggacagagcg ccccggccgc ctgatggccg aggcagggtg cgacccagga 180
cccaggacgg cgtcgggaac cataccatgg cccggatccc caagacccta aagttcgtcg 240
tcgtcatcgt cgcggtcctg ctgccagtcc tagcttactc tgccaccact gcccggcagg 300
aggaagttcc ccagcagaca gtggccccac agcaacagag gcacagcttc aagggggagg 360
agtgtccagc aggatctcat agatcagaac tcgag 395

<210> 465
<211> 292
<212> DNA
<213> Homo sapiens

<400> 465
gaattcggcc aaagaggcct actatccatc tatctatcta tccatctatc catctatccc 60
tctcttcctg caataaaata tccattgagg tcacatcatg tgatcgactt cctccctctc 120
tcaatctccc tacaagttcc gaaggaaata agtacactct gttcaaacca cttcctccta 180
tctgagaacc gctaagggag gaggcaattt gattatggta attctagcta agacagcaat 240
tttaggggtt gggggctcag tggttctctt ttgttgtcaa acagctttcg ag 292

<210> 466
<211> 408
<212> DNA

<213> Homo sapiens

<400> 466
gaattcggcc aaagaggcct aggtacagta ggtttataaa cagaagttta aacttatttc 60
tttacatatt catcaatgtc tgaagaagtt acttatgcag atcttcaatt ccagaactcc 120
agtgagatgg aaaaaatccc agaaattggc aaatttgggg aaaaagcacc tccagctccc 180
tctcatgtat ggcgtccagc agccttgttt ctgactcttc tgtgccttct gttgctcatt 240
ggattgggag tcttggcaag catgtttcac gtaactttga agatagaaat gaaaaaaatg 300
aacaaactac aaaacatcag tgaagagctc cagagaaata tttctctaca actgatgagt 360
aacatgaata tctccaacaa gatcaggaac ctctccagca cactcgag 408

<210> 467
<211> 487
<212> DNA
<213> Homo sapiens

<400> 467
gaattcggcc aaagaggcct aaaaagagaa aaaagaaatt tagaagaata acaagttatt 60
ccaaatgaag gcgtaagaaa gggaataata acaataataa gaggagttgt tcatgaggaa 120
aaaccaaagc ttgaaaattc aacaaagcca gtgaagctca ttcttgaaaa catgaatcac 180
actcatgaat tctaactaca atgaaaaaga gaaagaaaga gcaggcatgc atttccatat 240
gggagtgagc cagcagacag ccctacagat cgtacacacg ttttccaaaa ctaacaatgg 300
aacaggcggc aaacctatgc caatatacta gaaattgcag attaaataga tgaaatattc 360
taaactggag tttacataat gaacataaga gtaatcagag aatctgactc attttagatg 420
tgtgtgtgtg tgtatatata tgtgtgtgtg tgtgaaaaac attgactata ataaaaataa 480
tctcgag 487

<210> 468
<211> 600
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (503)

<400> 468
gaattcggcc aaagaggcct aatgatgcaa tagcttgaaa attagttata gtatatcaga 60
ttgatgcact tctgtgaaaa aggtcacact ctatgtctat ttcaaaatgc agaccctgca 120
ttttggtaat gttttaaatc cacagagaga cagttagagg atgaaaactg gaaactgaag 180
aataatttta agaatgctaa gctctctgct ttatttatgt aagttacatg acataaaatg 240
tcagggaagt gttttgacta ttactgtaca aaataggaag aaccaactca gtgaacaaat 300
ttgccttctg tttgttgagt cagttatttt acaaaaaaaa ctattgctta ttttcagtag 360
acatttttag ttttccatga atactgaaaa attaaagact ttaagttctg atcatgaaaa 420
acaaacaaat ttatttcacc aaaaatattt tcaacttagt tattattaga taaacatata 480
acttcatata ttaaaatagt agnaaagcaa ggttaatagt atattttatt acattaagca 540
aattaatgta tatatgccat aggcatcaat atttagaatg tttaattagc actactcgag 600

<210> 469
<211> 887
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (367)

<400> 469
gaattcggcc aaagaggcct atgctgagtg gaaggaaaca gccaggtggc tgaagtttga 60
agaagatgtt gaagatgggg gagaacgctg gagcaagcct tatgtggcaa ccctttcatt 120

gcacagcctg tttgagctaa ggagctgcct tattaatgga acagtcctcc tggatatgca 180
tgcaaatagc atagaagaaa tttcagacct gatcctggat cagcaagaac tgtccagtga 240
cctgaatgac agcatgaggg ttaaagtgcg ggaagccctt ctcaaaaagc atcatcatca 300
gaatgaaaag aagagaaaca acctcattcc cattgttcgc tcctttgctg aggttggcaa 360
gaagcantct gatcctcatt tgatggataa acatggtcaa accgtgtctc ctcagtctgt 420
tccaactaca aatcttgaag taaaaaatgg agtgaattgt gaacatagtc ctgtggattt 480
aagcaaggta gaccttcatt tcatgaaaaa aattcctact ggggccgagg cctccaatgt 540
cctggttgga gaggtggata ttttggaccg tcccattgtt gcctttgtga ggctgtctcc 600
agctgttctt ctctcaggcc taacagaagt gccaatccca acaagatttt tgtttatctt 660
attgggtcca gtagggaaag gtcagcagta ccatgagatt ggcagatcca tggccaccat 720
catgacagat gagatttttc atgacgtagc atataaggca aaagagcgag atgatctcct 780
ggcggggatt gatgagttcc tagaccaggt gacggtgctc cctccaggag agtgggatcc 840
ctccattaga attgagccac ccaaaaatgt cccttcccag gctcgag 887

<210> 470
<211> 488
<212> DNA
<213> Homo sapiens

<400> 470
gaattcggcc aaagaggcct acatttccgc acgctattgg gtgccatatt ctgtgtctga 60
ggttacaggc atgccagaac cctccccactg ccaagctggg agatcatttg ttatttctgt 120
agccataggc ttgccaaaac ctggggagct tgattctgaa aggagccatc atgccagagg 180
gcagcaagct ggcgagctgt ggggtggtct caacactcga tatccaagcc tttcagcctg 240
agtgtaacca gagcccctcg gagagaaagt ggccctgagc tgcctcagct gctgtaaaat 300
tcctctaatg gcctagtcta agtccctctc actcaggcca ccgccatttc aatggaaagt 360
gagttgggtc caaataggat gaaccaaact tctgtctgag caaaaaagtt ggcccagggc 420
tcaagagctt taaatggacc atgaataatg ttttacagcc tcggcactgg ggtgaactca 480
accccata 488

<210> 471
<211> 471
<212> DNA
<213> Homo sapiens

<400> 471
gaattcggcc aaagaggcct ataggcctct ttgggtggtc tctgaaaaaa aaaaaaagag 60
taagtgggat ctgtgtgagg agctggtgtg cagtgttctt ggagtaggac tgtccccaga 120
tggagaaaag ccggccaggc tgtgccagcc tctgcagcct gttttcatct ctacagctgt 180
ttcgtctcgc cagcagagcc cagggatggt accaagtaca ctgtgagagc tgatactgga 240
gttggcagat gccctggggc aggcaccatg cagaacacac agaagtgggg ttagtgaaaa 300
ggtcccttcg aattccattt cgtttccctt aaaaaacaaa aacaaaagcc catactttgc 360
aaagagacag gacgagaaat aagaagttaa agaatttaaa atgtctccct ttttctcaga 420
gccaattgta aaaaagagcc cagcgtcgat tgaatctaga cccaactcga g 471

<210> 472
<211> 746
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (177)

<220>
<221> unsure
<222> (242)

<400> 472
gaattcgcgg ccgcgtcgac gttaatcgaa agagattatc agggtgtgtc tgactaaacc 60

agtgagccca tgaaaaggtc ctgcccttcc tgaggtcagg gatgttcagg atgagggatt 120
ctgtgctggc tttgaagacg gaggggctat atggtgagga cctgagggag accctangag 180
cagacagcat tctctggcca gcaacagcca gtaaggaaat aaggacggtg gtcctacaac 240
cnacaaggaa ttgaattctg ccagcaacag aaaatgctgg gaggaggatc ccaagcttca 300
gatgagaacc agccctggct aacgggctga ttccagcctt gtgtgactct ggacacagag 360
cccggttggg tccggcctga cttctgagct agggacctgt gagttataaa catgtgctat 420
tctgagggct ccatttgtgg ttttttgtta gacagcagca gaaaactact gcctcctccc 480
tctggctgtg gagatttgcc cacctttttag gtggcctaag cttaggaagt ggcctaagct 540
tagggagtgg cctaagcttc cactttgctt ctattccatt tcctctcctt tcccagaggt 600
tttctccttc tcttttctcc catttcttgt acaataaaca ataccactca tttcttctcc 660
tggattattt ccatcagcat acaaacctgc cgcatcttac aaatatcttt ccctagtcac 720
tcctccctct caaggtgcca ctcgag 746

<210> 473
<211> 370
<212> DNA
<213> Homo sapiens

<400> 473
gaattcggcc ttcatgccta caaaaattag ctgggtgtgg tggcatgggc ctgtagtccc 60
agctacttgg gaggctgagg caggagaacc gcttgaaccc aggaggtgga ggtttcaggg 120
agctgagatt atgtcactgc actccagcct gagcaacaga gtaagactct gtttaaaaaa 180
aaaaaaaaat taagtgtgct gtcttagtat cttgttatta tgtcctaaca gccatacaca 240
acttattaga aggatatcct gtagtgcctg tgttgagtct ctaggcttaa tctaatggct 300
tctttagctg atgatcactt cgtgatggag tgctgtgtgt tgaattactc ctctccccta 360
cttcctcgag 370

<210> 474
<211> 607
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (136)

<220>
<221> unsure
<222> (359)

<400> 474
gaattcgcgg ccgcgtcgac tctgaacatg gcggcggtgg tagctgctac ggcgctgaag 60
ggccgggggg cgagaaatgc ccgcgtcctc cgggggattc tcgcaggagc cacagctaac 120
aaggcttctc ataacnggac ccgggccctg caaagccaca gctccccaga gggcaaggag 180
gaacctgaac ccctatcccc ggagctggaa tacattccca gaaagagggg caagaacccc 240
atgaaagctg tgggactggc ctgggccatc ggcttccctt gtggtatcct cctcttcatc 300
ctcaccaagc gggaagtgga caaggaccgt gtgaagcaga tgaaggctcg gcagaacang 360
cggttgtcca acacgggcga gtatgagagc cagaggttca gggcttcctc ccagagtgcc 420
ccgtcccctg atgttgggtc tggggtgcag acctgaggag cgctgcgacc ctcctaggct 480
attgactgtt aagtcctcag gtttggccca gattccagtt cgtgcctctg aggtccacca 540
gagggcgcat gaagcccagg ctgttgccaa accctaccct gccccacacc aaggagccga 600
tctcgag 607

<210> 475
<211> 687
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (7)

<220>
<221> unsure
<222> (243)

<400> 475
gaattcncgg ccgcgtcgac ggccccagca aggcccatga gtgactgccc tgacgtattc 60
actgtgcctc tgggccactt cttcccctgt agatgtgggc ttgttgcctt cagccggctt 120
ccctgaggga ggagaacact ggattattgg aaatgtttta atcactcttg ccattaccta 180
catctattag catagatgat gaaaagctgt tactggtgat tatagatgag tatttccagg 240
acnacattct aaaagtacaa ttatttctta ttggggagat tacaggtagt ttggcaaagc 300
attgaagtac aaaggtacat tttcaattaa aaagcacact tctacaaaag atttggtttt 360
taaattatgg ttacacattt cagtaactca tagctgctgt gcaaattggt agaccttata 420
agaaggcact tgtttgtaag ccagagaaga aactttaatt gcatcctatc agattgttga 480
ggtgggtgtg atagtcttca ggtgcagtgc gttcattcac taacgctcac tgtcagtgcc 540
catgtttgct agctgcctcc atgtgactag tgagctgctg gtgaaagtcg tgtgaaatcc 600
tgtacactgt gtatagaaca atgtaatttt atgttaattg ttattacttt aaaacatatc 660
taccatctga ttggctggta actcgag 687

<210> 476
<211> 545
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (126)

<400> 476
gaattcgcgg ccgcgtcgac cggaggttgc agtgagccga gatcacacca ctgcactcca 60
gcttgggcga cagagtgaga ctctgtctca aaaaggaaat atcagagttg agaatagaag 120
gatgtngcat ggaaagtgga acagatgatg tttttgttgt cacaaataag gggagctaaa 180
ccttggcctg agcccttgtg agagggagta cagagctgaa ttgtgtggat aacttacatt 240
ttaggcagag ggttgagaaa tacccattta gctacataga gtaagttaaa agttcagagg 300
tttttccgtc tctggcgtcc aaggtgtaat gaattccttg gactgtactg agacctgcag 360
aagaacagac aggagccagt tgttcagaat catgaaaaat caagaaggct gtgattgaat 420
ggagtgtaaa cccacatttc ccttggaatg caggtccaag ataaatgtgc tgcaacaaag 480
caaaatgtgt ggcaattttc atactgaagt tgaaccctgt tggggaggga gagtgggagc 540
tcgag 545

<210> 477
<211> 773
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (219)

<400> 477
gaattcggcc aaagaggcct acgagagccg aaggaggctg tgggaggtgt tggcggcggc 60
ggcgcgggcg cctgaggagg aggaggagaa gcggatgaga tcgtggggct caccagcgtc 120
ccccatggct tctgagtagc gtgggagtgg agtcagcacc aagccaggct ccccgcgcct 180
gccttgccct cacctgctcc tgctctctgc cagaggcana tggtccgcag ggcaccatgg 240
ggcccgcaga gtgacagcac gagaactgtg cgagaacgac gacctggcca ccagcctcgt 300
cctggacccc tacctcggtt tccgcaccca taagatgaac gtcaggtcta tcgctacctc 360
cgtgccttcc tgccggaaag tggctttacc atcctgccct gcacgcgcta ctccatggag 420
accaacgggg ccaagatcgt gtccactcgt gcttggaaaa agaatgagaa gctggagctg 480
ctggtgggct gcattgcaga gctgcgggag gcagatgagg ggctgctgag ggccggtgag 540

aatgacttca gcatcatgta ctcaacccgc aagcggagtg ctcagctgtg gctgggccca 600
gccgccttca tcaaccatga ctgcaaaccc aactgcaagt ttgtgcctgc agatgggaac 660
gcagcctgcg tgaaggtgct ccgggacatt gagcctgggg acgaggtgac atgcttctac 720
ggcgagggct ttttcggcga gaagaatgag cactgtgaat ggcacacctc gag 773

<210> 478
<211> 517
<212> DNA
<213> Homo sapiens

<400> 478
gaattcgcgg ccgcgtcgac gagagttctt gctcttgctg taccagatac tctttttctt 60
ctactcctct tcagagagtc ctgaactatg cttttataac caacccacgt gtttctaact 120
gtgaattatg attgcatatg cctctaccac ggtgcttacc acactacatc ataaatattc 180
atttgcactt tgtctccatt ctaggtagca aactctttca acataagaat tttatctaag 240
cactcttcac tttatgcctt tgccagtcaa cactatcctg atgttaacat ccatatgatg 300
taatcaatat tcagtcaaca aatatctgga gtagatagcc attgtacccc aaagtaaatc 360
atatgagccc tacttttaag aaatccaagc tgtcactgga ataaaaatga tgtttcatca 420
tccacaaagt aattattgca taaagaagcc ccatactctg gcatccactt tacaaaaata 480
aaaaatcagg gaaaggatga atcgtcatgg actcgag 517

<210> 479
<211> 202
<212> DNA
<213> Homo sapiens

<400> 479
gaattcgcgg ccgcgtcgac atcattttaa tgaaatgcct ttgtactact cctgtgtagt 60
catcatgtcc tccttccagc ctccaccacc aatcaaccaa ccaactttaa tcctggcagc 120
taccagttgt ctgaatttta tcactttcgc tataatttta tctttctcag aatgtcataa 180
tacagtagcc cccgtactcg ag 202

<210> 480
<211> 243
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (19)

<220>
<221> unsure
<222> (98)

<220>
<221> unsure
<222> (208)

<400> 480
gaattcggcc aaagatgcnt aatgctctca taccagtgaa aacagactgg tcaacttagt 60
ttttttgttt tgtgttttct ttttcttttt tttttttnac acgttttgtt acacgagaac 120
gatgggtagg ccccatctgg ggtcttgggg agaaaagcaa gttccccgat ttattgaatg 180
ttccctgttt gcattcccca tgctcgangc aggtccgtcg attgaattct agcactcctc 240
gag 243

<210> 481
<211> 900
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (692)

<220>
<221> unsure
<222> (727)

<220>
<221> unsure
<222> (865)

<400> 481
gaattcgcgg ccgcgtcgac cgattgaatt ctagaccagc cttgctccca gctcacccac 60
aagatgtgga cagctcttgt gctcatttgg attttctcct tgtccttatc tgaaagccat 120
gcggcatcca acgatccacg caactttgtc cctaacaaaa tgtggaaggg attagtcaag 180
aggaatgcat ctgtggaaac agttgataat aaaacgtctg aggatgtaac catggcagca 240
gcttctcctg tcacattgac caaagggact tcggcagccc acctcaactc tatggaagtc 300
acaacagagg acacaagcag gacagatgtg agtgaaccag caacttcagg agttgcagct 360
gatggtgtga cctccattgc tcccacggct gtggcctcca gtacgactgc ggcctccatt 420
acgactgcgg cctccagtat gactgtggcc tccagtgctc ccacgactgc agcctccagt 480
acaactgtgg cctccattgc tcccacgact gcagcctcca gtatgactgc ggcctccagc 540
actcccatga cacttgcact ccccgcgccc acgtccactt ccacagggcg gaccccgtcc 600
actaccgcca ctgggcatcc atctctcagc acagccctcg cacaagtgcc aaagagcagc 660
gcgttgccaa gaacagcaac cctggccaca tnggccacac gtgctcagac tgtagcgacc 720
acagcanaca caagcagccc catgagcact cgtccaagtc cttccaagca catgcccagt 780
gacaccgcgg caagccctgt acccccatg cgtccccaag cacaaggtcc cattagccag 840
gtgtcagtgg accagcctgt ggttnacaca acaaataaat ccacacccat gaccctcgag 900

<210> 482
<211> 354
<212> DNA
<213> Homo sapiens

<400> 482
gaattcggcc aaagaggcct atcaaaacta accctttcct ctgacttctt agtcaaagaa 60
catacacttt agctaatacc ccaagacaga agttctttgg tgctgagagt caacgagagt 120
cacattctcc ttgaaaaggg aagggaagct ctatacctgg ataactgcgc agatccatgg 180
ccccatagca caaaattcgg gcaactgaga acccagctgg cccccagctg gtaattcctc 240
aacattctgg tgtgtcctaa cattgccaaa taggctggaa ggatttagag aacaggaagt 300
aagctactgg gagataaggc tgcagctgtg aattatagac agggaaggct cgag 354

<210> 483
<211> 631
<212> DNA
<213> Homo sapiens

<400> 483
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gctgaacagt aacaacatag gagataacat cttcttttct tcgctgagtc tgctttatgc 180
tctaagcatg gtcctccttg gtgccagggg agagactgca gagcaattgg agaaggtgct 240
tcattttagt catactgtag actcattaaa accagggttc aaggactcac ctaagtgcag 300
ccaagctgga agaattcatt ccgagtttgg tgtcgaattc tctcaaatca accagccaga 360
ctctaactgt accctcagca ttgccaacag gctctacggg acaaagacga tggcatttca 420
tcagcaatat ttaagctgtt ctgagaaatg gtatcaagcc aggttgcaaa ctgtggattt 480
tgaacagtct acagaagaaa cgaggaaaat gattaatgct tgggttgaaa ataaaactaa 540
tggaaaagtc gcaaatctct ttggaaagag cacaattgac ccttcatctg taatggtcct 600
ggtgaatacc atatatttca aaggactcga g 631

<210> 484
<211> 487
<212> DNA
<213> Homo sapiens

<400> 484
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attcatgacc tactggcatt tgctgaacgc atttactgtc acggttccca aggacctata 120
tgtggtagag tatggtagca atatgacaat tgaatgcaaa ttcccagtag aaaaacaatt 180
agacctggct gcactaattg tctattggga aatggaggat aagaacatta ttcaatttgt 240
gcatggagag gaagacctga aggttcagca tagtagctac agacagaggg cccggctgtt 300
gaaggaccag ctctccctgg gaaatgctgc acttcagatc acagatgtga aattgcagga 360
tgcaggggtg taccgctgca tgatcagcta tggtggtgcc gactacaagc gaattactgt 420
gaaagtcaat gccccataca acaaaatcaa ccaaagaatt ttggttgtgg atccagtcac 480
actcgag 487

<210> 485
<211> 558
<212> DNA
<213> Homo sapiens

<400> 485
gaattcggcc aaagaggcct acacgtaata aaaaacatgg gcttcaacct gactttccac 60
ctttcctaca aattccgatt actgttgctg ttgactttgt gcctgacagt ggttgggtgg 120
gccaccagta actacttcgt gggtgccatt caagagattc ctaaagcaaa ggagttcatg 180
gctaatttcc ataagaccct cattttgggg aagggaaaaa ctctgactaa tgaagcatcc 240
acgaagaagg tagaacttga caactgccct tctgtgtctc cttacctcag aggccagagc 300
aagctcattt tcaaaccaga tctcactttg gaagaggtac aggcagaaaa tcccaaagtg 360
tccagaggcc ggtatcgccc tcaggaatgt aaagctttac agagggtcgc catcctcgtt 420
ccccaccgga acagagagaa acacctgatg tacctgctgg aacatctgca tcccttcctg 480
cagaggcagc agctggatta tggcatctac gtcatccacc aggctgaagg taaaaagttt 540
aatcgaacca aactcgag 558

<210> 486
<211> 971
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (11)

<220>
<221> unsure
<222> (83)

<220>
<221> unsure
<222> (364)

<220>
<221> unsure
<222> (387)

<220>
<221> unsure
<222> (445)

<220>
<221> unsure

<222> (546)

<400> 486
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gggaccatga tttggaaacg cancgccgtt ctccgcttct acagtgtctg cgggctcctg 120
ctacaaggca gccaagggca gtttccacta acacagaatg taaccgttgt tgaaggtgga 180
actgcaattt tgacctgcag ggttgatcaa aatgataaca cctccctcca gtggtcaaat 240
ccagctcaac agactctgta ctttgacgac aagaaagctt taagggacaa taggatcgag 300
ctggttcgcg cttcctggca tgaattgagt attagtgtca gtgatgtgtc tctctctgat 360
gaangacagt acacctgttc tttattnaca atgcctgtca aaacttccaa ggcatatctc 420
accgttctgg tgttcctgaa aagcntcaga ttagtggatt ctcatcacca gttatggagg 480
gtgacttgat gcagctgact tgcaaaacat ctggtagtaa acctgcagct gatataagat 540
ggttcncaaa tgacaaagag attaaagatg taaaatattt aaaagaagag gatgcaaatc 600
gcaagacatt cactgtcagc agcacactgg acttccgagt ggaccggagt gatgatggag 660
tggcggtcat ctgcagagta gatcacgaat ccctcaatgc cacccctcag gtagccatgc 720
aggtgctaga aatacactat acaccatcag ttaagattat accatcgact ccttttccac 780
aagaaggaca gcctttaatt ttgacttgtg aatccaaagg aaaaccactg ccagaacctg 840
ttttgtggac aaaggatggc ggagaattac cagatcctga ccgaatggtt gtgagtggta 900
gggagctaaa cattcttttc ctgaacaaaa cggataatgg tacatatcga tgtgaagcca 960
caaacctcga g 971

<210> 487
<211> 833
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (111)

<220>
<221> unsure
<222> (399)

<400> 487
gaattcggcc aaagaggcct aagaaagtga aaagggaaga aagatgtata cataaaaata 60
cgaatggatt ctggaatttt tagtctagta cagactctct aaattgagtc nggatctaga 120
gaaagtttag aattctaact gtagattatt ttacatttag gacagtgaaa agtggacact 180
ttaaaaatag ctacttacat gctttgaaag gagctcagat aaaatattgg catgttcatt 240
gaacattctt cattaggctc cagtgggatc atgttactat gctgtgagta tctggcatgg 300
aagatgttat catataatat gagacacagg aaaataatgg tctacttaat tgctgtttaa 360
gtatgattac acgtatttgt agttgtatga tgtcatgtng aacaaacatt tgttagacaa 420
gagattaaag tccgttggta aaatctgatt ttgccaagag atggggaaag tacaagtatg 480
gccatctcct ttcactgtgt cccttctcag ataaccatgt aaaaagaagc tgagatagta 540
tgatagtgtc ttattttggt aggtggattt ctggaaagtt ctgtcttctg gtgtgtgtat 600
gtatttgttt ttaaattata agagtaatgc tcattgaaga aaacttgtaa aatagaaaaa 660
atagaaatat aaattatgca taatctcaca cccagaaata actattgtta atgttttggc 720
atatttctgt ttgttttttg tttttttgag acagagtctc actctggtgc ccaggctgaa 780
gtgcagtggt gcgatcttgg ctcactgcaa cctctgtctc ccgggtactc gag 833

<210> 488
<211> 522
<212> DNA
<213> Homo sapiens

<400> 488
gaattcggcc aaagaggcct agcaatcgct tacaggaagt tttgaatgac tactataaag 60
agaaggcaga gaattgtgta aaattgaata cccttgaacc cttggaggat caagacctgc 120
caatgaatga gcttgatgag tctgaggagg aagaaatgat tactgtagtc cttgaagaag 180
ccaaagagaa gtgggattgt gaatctattt gtagtacata ctcaaattta tataaccatc 240

cacagcttat caagtatcaa ccaaagccca aacaaattcg aatatcttct aaaacaggaa 300
tacctctcaa tgtcttacca aagaaaggac tcacagcaaa gcaaactgaa agaatacaga 360
tgattaatgg cagtgatctt cctaaagtat caactcagcc acgttctaaa aatgaaagca 420
aagaagataa aagagcaaga aagcaagcta taaaagaaga gcgcaaggaa cgaagagtgg 480
agaagaaagc taacaaatta gcatttaagc tggagactcg ag 522

<210> 489
<211> 643
<212> DNA
<213> Homo sapiens

<400> 489
gaattcggcc aaagaggcct acatattctc cgtagtcaca gtttcagaac tgagtaagga 60
tccttggtac ttggtggcat ctgttgaact gaggagcatt tctcattgta aagattgcct 120
ttgttctgtc taaaagtctg gagaaatccc aaagactttt cctatgtact aggcatttta 180
ttttgattga cttacaaact cttcttaatc attatcaatc tcggtttttt tgtggtgcag 240
tggaaggaga aataggtcta gtttctgcct ctgattagcc gcacagcctt gaacaaatca 300
catttcatct ttgaacttac ctctactgtt agactaggcg actcacattt gaggactttt 360
ctcgggtatc ttgagggttt gtgatcctga acccttaaac agtgcttttt tgttacacag 420
gagggctttt ttggggggat gaccagtaca gacatgccag ttagttttac tagtgggatc 480
ccaaatccaa agcagtgtag tggtgattgg tcagtgacta accaggcagc taagaagtct 540
taggcagcag cccagacatg tatagagggg cagttagagg gagaacaggg gtgggaaagg 600
gagcaagggg cagatagctc agcaaggaaa gaatcggctc gag 643

<210> 490
<211> 434
<212> DNA
<213> Homo sapiens

<400> 490
gaattcggcc aaagaggcct aggggactgg agaatggcca tgccaagtgg cctgtataaa 60
aagtaaccga agtcatgggg ccagagtgcg atttttctga atgaaccaca aatggcatgc 120
tgttgattga aaaccactga agacaggaag aagaggaaca ggcagtttga aggttagcac 180
aaaaatcagg cattggcttg gcttctgcca ttggtgagac tcccattcaa tgatttcaca 240
tagcccctgg gctggccacc aaaactgtct ccttatttct ctccatgctg acctcctcct 300
cccctcagcc actgctcatt ccctcttctc ccagacacga aaattttagg tcgcttttcc 360
tcattcctct acactgtcct aagcctcagt agtagtcttc ttcttatctc tcccggagtg 420
ggggctggct cgag 434

<210> 491
<211> 218
<212> DNA
<213> Homo sapiens

<400> 491
gaattcgcgg ccgcgtcgac caagtttctt cctgcataga gtggggtagt gattacctct 60
aggattgtga aggtggggag agaatgcgta taaagatgct gcttcccagt ctagtactgt 120
tttctgttct gtttgccagt ctagtgaatt gctcgatgac cagccaccac tctccctcat 180
tgcaagggca gataggagtg agctggctct ttctcgag 218

<210> 492
<211> 693
<212> DNA
<213> Homo sapiens

<400> 492
gaattcggcc aaagaggcct aaaagtaact tcaaaattta aaatactaga acgtttgctg 60
cgataaatct tttggatttt tgtgtttttc taatgagaat actgtttttc attacctaaa 120
gaacaatttg ctaaacatga gaaatcactc actttgatta tgtatagatt acataggaag 180
aacaatcaca tcagtaagtt atagtttata ttaaaggtaa ttttctgttg gctcataaca 240

aatataccag cattcatgat agcatttcag cattttccaa ggtaccaagt gtacttattt 300
tgttgttgtt gttgttgttg tattttagaa ggaattcagc tctgatgttt ttaaagaaaa 360
ccagcatctc tgatgttgca acatacgtgt aaaatgggtg ttacatctat cctgccattt 420
aaccccacag ttaataaagt ggctgaaaat aatagtagct ctggcttggt gcttgacctg 480
gttaaatact gtcttaaagc tcatacaaaa caaataggct tttccataag tggcctttaa 540
gaaaacatgg aagacaattc atgtttgaca aatgctgaca gggtgaagaa agcccagtgt 600
aaaaatgaat cgcgttttaa gtgattcggt taaagagttt gggctcccgt agcaaactaa 660
tactagataa taaggaaatg ggggactctc gag 693

<210> 493
<211> 228
<212> DNA
<213> Homo sapiens

<400> 493
gaattcgcgg ccgcgtcgac ttttaagcta tttgtctgtt aagtatataa taccaaaacg 60
caggttgttt aaattaggat ttccaagtaa tttacgtcgt cttcaaaatt cctggggtct 120
atcaatcaga aacgccagaa agtttgtgta ctagtttcac attgttaagg gagtatctat 180
aataaaattc aaatgcgtta ttttaaaata agtaaaggac ttctcgag 228

<210> 494
<211> 230
<212> DNA
<213> Homo sapiens

<400> 494
gaattcggcc aaagaggcct aattgtaaag aaaaggctta cagaatattt aaatcgtatg 60
gttaatttta tgttcataaa gttttatttt ttgttacttc atggaatatc ttttccgtgt 120
cagaagacta gaagtttcgg gccgggcgtg gtggctcgcg cctgtagtct tgaactcctg 180
acctcgggtg atcccccac ctcggctccc ggagtggggg gatcctcgag 230

<210> 495
<211> 135
<212> DNA
<213> Homo sapiens

<400> 495
gaattcgcgg ccgcgtcgac aaaaatggtt atatcctttt atattgtatt aatgtcatgt 60
ctagtaatcg atcctaaaga aataaccagt cagccggcac agtggctcac acctgtaatc 120
ccagcacgtc tcgag 135

<210> 496
<211> 522
<212> DNA
<213> Homo sapiens

<400> 496
gaattcggcc aaagaggcct ataggccgtg aatgattaaa taaaagtcta agttcacccg 60
agcctggata aaataaaact caaagcccag aaacttcaaa taaaataaga aaaaatcata 120
atttttcacc tcaaaaggaa actgagaaga gaagtatgat gtgacagaaa ctatgatttc 180
aaatggaggg tttcttttgt tgtttgtttt tcagaactag actcacattt tacaaaaggc 240
tccctaccca taaggaagaa agttttgaga gtaatgaggt tgatctgaac tgttaaaaac 300
tttctaactg agatatagca acatatggtg tggcagaata aaaatggcca caaaatcttt 360
aacattcctt ccatccagaa gtgaggggtc tatgttcctt ctccctgagt aaggtggggc 420
cactgagtat tttcactaag agaattcagc agaggctggg tgcggtggct catgcctgta 480
atcccagcac tttaggaggc caatgcagca ggatcactcg ag 522

<210> 497
<211> 493
<212> DNA

<213> Homo sapiens

<400> 497
gaattcgcgg ccgcgtcgac gtgggttcat ctgtggcact ggaatcagca gtcatcttcc 60
aaatctgaga tccctaaatc cactgtcttg attgttcttt tgccagttgt caacaagccc 120
ttctcaaatt cttcttcagt tattttgcct ttcttaagtt ttttcaagag tcttgtgtca 180
ttaagaagtt cttccatgtc ctcatcttca atatcagaac cctcttccct tttcctttc 240
tcattcattt ttttcttctt ttctttttg gccttctgct ttgaccaagc tttattttt 300
atgaattttc ttctcccttc attttctgtt ttctctcttc tttgttgctc caggagtttc 360
tgcctctgct tttctctgat tttatcttta aatggaatcg tgtcggtatt aacgtccacg 420
ggcacaaaat ctggaaactg ctttcctctc aattctggca tcttgggcat cctcagcagg 480
gcaaaacctc gag 493

<210> 498
<211> 202
<212> DNA
<213> Homo sapiens

<400> 498
gaattcgcgg ccgcgtcgac cccaggctgc tatggagggg caccacggct tttttgtttt 60
ttgtttgttt gtttttaatc tcagccttgg cgtgagctgg ggccttcctc tcttctccag 120
cctctccctt tcactcttca cccagcatcc tgccccccctg tccaaaaaca gcaggacatc 180
agacccatcc catcacctcg ag 202

<210> 499
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (12)

<400> 499
gaattcgcgg cngcgtcgac ccctctccag atattcaggt gagaatcaga agccagccat 60
cacctttact ttgagaaatc tggctctga gcgtcttgca tctgaatttc ccccaggcct 120
ctcatgccat ccattccctt tgagagcttc ctcccgcttc gatcactgat tctacctgct 180
ctccagggcg ctctggcttc ctcggggagc tgggtctcag atcccaggcg ctggtgccac 240
ctcaggttgg caccaaggct gggaaaaggg tttcctgcct tgcctggtta tcacctttgc 300
agagggaagg cacttgggcc agttgctagt ctcaccctcc tcctctttgc ctgttcatca 360
tagtggcttt tccacgttct ggccactctc gag 393

<210> 500
<211> 145
<212> DNA
<213> Homo sapiens

<400> 500
gaattcgcgg ccgcgtcgac atttattaat gcatatattt cccctgcttg ttgtacaagt 60
aagttactct tttcctttaa tctgtaagat tcatgaaatt cggggccagg gaaacagttt 120
agccttaggg aagggaacac tcgag 145

<210> 501
<211> 182
<212> DNA
<213> Homo sapiens

<400> 501
gaattcgcgg ccgcgtcgac tgggctgtcc ttggtggtct tgctcttctc agagaacagt 60
ggtagggagg gcagctcaga ttctgaactc agggacagtc ggagcacctc ccgaggcact 120

gaggaagacc tggctcgctg ccttcctgga gggacaatct gctcttcacc tctaacctcg 180
ag 182

<210> 502
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (346)

<400> 502
gaatttcgac aagaggtgtt atctggaaga ttaataagtg ttcaatttaa aacattcagt 60
aagcttgtcc tgtattcctg cacgaagagt agaacagcaa tatattccat aaaagtaaag 120
caaaataaag ttattccaag taaactaaat tagaaggctt tttatgaact gggcaactgt 180
tggaactaag ctggtatggg gttgttagct gattgtaatg tgcccagcat tagaatacta 240
atccagattt ttatattacc catccttctt gtttcttctg agcagcagtc agagatcact 300
ggttggttca caggaataag caggattagc ctaaattgca gaaacnaact taaaacaaca 360
gtaggccatg aaggccga 378

<210> 503
<211> 427
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (59)..(60)

<220>
<221> unsure
<222> (166)

<400> 503
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atacacagca gtctttgact ctccttttga aggaggtgcc tcatccttcc ttcagccact 120
ccccactcca ttctccccac ccccctcatc ctgcacctgc ttttcngtgg cctgcatttg 180
gtacatttgc attctgctca gtagccacag taacgtctca ccactttggc tggtgtctga 240
cacctgcagg tttccagcac tgccacctgg gggtcttcta accacagagc agatcatgcc 300
cctcctgctg gcgcttcctc aatactccaa ggagagcatt cgggctcctg ggtttggtat 360
gaaacccctt tgcaatcggt gccagcccat gtgtgcagct tcctcactag tcactccaca 420
actcgag 427

<210> 504
<211> 270
<212> DNA
<213> Homo sapiens

<400> 504
gtaggccatg aaggccggcc ttcatggcct acagttagtg tctccatctg ggcaagagac 60
aacatgtgaa agtctcattt atgctggaag atagggtagg gttgagagtg atggttacaa 120
gcattttaac tttacatcta caagagtgtg gtacagatta agtccttgat aatcatgttg 180
tatatttaaa aacatctata gatgatttta tgtagaatgg gaattttaac attttaaatg 240
tgtttatttc tttggtgggg aaaactcgag 270

<210> 505
<211> 335
<212> DNA
<213> Homo sapiens

<400> 505
gaattcggcc ttcatggcct agtcctttca ggtaagtatt attactatta tgcccattgt 60
acagatggga aaattaaact cacgtagtta ggataaataa cccccaaagt tcacatagct 120
gctaagtggt tgaaatgaga tttgaattta ggcagaggat tccagagtgt gttctctttg 180
acatatggtc ataaccatct ttccatgtca ataaatatag acttcacctg tacttgtatt 240
ggctgtatag tatttcactt tcatctcact caaactctta gtaatattca catatcttca 300
tttcttgaaa ggatttttc tttacagtgc tcgag 335

<210> 506
<211> 317
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (293)

<400> 506
gaattcggcc ttcatggcct acacaaacta tgcatccttc acagcctcag ggaacttatg 60
cctctccacc tcccatgtca cccatgaaag caatgagtaa tccagcaggc actcctcctc 120
cacaagtcag gccgggaagt gctgggatac caatggaagt tggcagttat ccaaatatgc 180
cccatcctca gccatctcac cagccccctg gtgccatggg aatcggacag aggaatatgg 240
gccccagaaa catgcagcag tctcgtccat ttataggcat gtcctcggca ccnagggaat 300
tgactggagt actcgag 317

<210> 507
<211> 546
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (173)

<220>
<221> unsure
<222> (250)

<220>
<221> unsure
<222> (292)

<400> 507
gcgattgaat tctagacctg cttcgtgtgc aaccctcacc atcctcccac tccagaactc 60
ttagttgttg taaaactgga actctgtacc cactaaacaa cagcaaccac tgttctactg 120
cctgtctctg cgattttgac tactctaggt accacatata agtggaatcc tanagtactt 180
gtgtttttgc ggccacaggg ttttatttat tttcttttct ccacctccag aatccccgcg 240
ttctgctccn ggctggtttt gcttctcctg ggtcgtgggg tgctatttgc angtgggtga 300
ggagccctct ccccatccat cctgcttgtg ttttcctcct gggtgctaac tggcctctac 360
ctttgtctct gtctcctctg cctctgctct tggttagctg acggtaggga aagtgtccag 420
cggaataggg gctgcagctg aagtcctggt caatctgtac atgaatgatc acagacctaa 480
ggcccaggcc acctctccag acctggtaag gacatgcacc cccagccttc acccacagct 540
ctcgag 546

<210> 508
<211> 379
<212> DNA
<213> Homo sapiens

<400> 508

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gtttgacacc aggccttgtt tttccagctg agcattctca ttttgctttt ctctaagact 120
atcaaagaca aggtattaat agtaggatta ttcctagatc agaatgtttc atacattcct 180
aaaggtttat gtggaaattg gcttaggaaa actttgagta gcagagactg aggatgagtg 240
ctagagatga aatcaggaca gatttgttgc agttaattct tgccaagcaa attagtggta 300
aatgtcacat tgttatgtga attgagcaca tatttttaaa gaaagtttac aaaaaatttt 360
tagaaccaca catctcgag 379

<210> 509
<211> 376
<212> DNA
<213> Homo sapiens

<400> 509
gaattcggcc aaagaggcct acttggcttt gataccttac tggacagtgt atttccaaat 60
gcagacaaca tatgttttac agagtcttca tttgaggatt ccagaaattt caaatattac 120
aaccactcct cacacgctcc ctgcagcctg gctgaccatg tttgatgctg tgctcatcct 180
cctgctcatc cctctgaagg acaaactggt cgatcccatt ttgagaagac atggcctgct 240
cccatcctcc ctgaagagga tcgccgtggg catgttcttt gtcatgtgct cagcctttgc 300
tgcaggaatt ttggagagta aaaggctgaa ccttgttaaa gagaaaacca ttaatcagac 360
catcggcacc gtcgag 376

<210> 510
<211> 439
<212> DNA
<213> Homo sapiens

<400> 510
gaattcggcc aaagaggcct acaagttcaa caattccagg aaatatattt ctatcactgt 60
gccatccaaa acccaaacaa tgtcaccaca catcaagtca gttgacgacg ttgtggtact 120
tggcatgaat ctcagcaagt ttaacaaact tactcagttt ttcatatgtg ttgctggagt 180
ttttgtattt tacctaattt atgggtattt acaggaatta atattttcag tggagggttt 240
taagtcctgt ggctggtacc ttaccttagt gcagtttgcc ttttactcca tatttggcct 300
aatagaactt cagcttattc aggacaaaag gaggagaata ccaggaaaaa cctacatgat 360
aatagctttt ctaactgtgg gtactatggg gttatcaaac acttccttgg gctacctgaa 420
ttaccctacc caagtcgag 439

<210> 511
<211> 289
<212> DNA
<213> Homo sapiens

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gagtcttagc tcccatttaa gttatgcttc tgaccttgta tggtctgtaa gcttgcccag 180
aaataagacc actgttttga actaccacaa aagtataaat gaatatttta atgccacaat 240
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<210> 512
<211> 577
<212> DNA
<213> Homo sapiens

<400> 512
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acagctgttc tgtctctgcc aaagctgttg cttgcagggc tcccatttga gctgccatag 180
ctatctgagt tactggcatt cctgatgcca acagggcagc aacattgaga acaaaatctc 240
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tatttattta cttatttttc acacgcaaac actcgag 577

<210> 513
<211> 353
<212> DNA
<213> Homo sapiens

<400> 513
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ggttaacaaa taccttccac agtcttcatt agcaaatgtc cttcttgtcc gctgcaagga 180
gagccaacat tctcattaag tcctcgttct tcctgttaac tgtttacatg actgtccttc 240
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attcggactt aggcagtgtt tcagttcatt acagagaagt ggttttcctc gag 353

<210> 514
<211> 180
<212> DNA
<213> Homo sapiens

<400> 514
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aaattaacat tagctttctc ctttttcttc ctttttgaga tagggtctcg ctctgttgcc 120
caggctggag tgcagtggca cgatcctggc tcgctgcaac ctccacctcc cagactcgag 180

<210> 515
<211> 308
<212> DNA
<213> Homo sapiens

<400> 515
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catcatctct gccctcaaca gtggaaatga tctctttccc acagatgttc tccctccctc 120
cttccttccc ttccccttcc tacaaacgtg aactcttaag tctttactct ctggtcttca 180
gaagggtttg gttacaagca gtcttcccat ttaatttgtg gctctgcctt ttaaaattgt 240
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gactcgag 308

<210> 516
<211> 305
<212> DNA
<213> Homo sapiens

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tgcatatgtc cagaatcagt tacaaagacc atccgattct ttttctctta gttcatctat 180
ttttcactgt ctcttggtcc caagtgtatc tgagtgatta ccttctggca ttctctgcta 240
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tcgag 305

<210> 517
<211> 287
<212> DNA
<213> Homo sapiens

<400> 517
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tgcacccact tcggacgctc ctgaggtcgt cagaaatgag gaagttgttg gctgtgtcgg 120
catccaaggt cgtatccact gtgaaaagga aaaaaagttg atcagaaaat ggacagaagc 180
caaccccatg cctctcctct acttcaaagg cccaaatatc tcttgacttt ggtttcttta 240
attctcttct tcccccaaaa tcaaaacttt tcatgaggct actcgag 287

<210> 518
<211> 390
<212> DNA
<213> Homo sapiens

<400> 518
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tgctatgccc tcctctaccc atgcctctca ggtgccttca cctacctggt gggggtctat 180
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gactggcgct ggacagagct ggcagctggc agtggtgcac tcttctttat catctcagac 300
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tccacctact atgtgaccca gatgctcgag 390

<210> 519
<211> 376
<212> DNA
<213> Homo sapiens

<400> 519
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tatcaaaata ggctctgaaa aatctctgca ccttgaagtg gagatcactt caatagtctc 180
tgacaatact gggcaggagg agtctgggga aaactctgta ccccaggaga tggaaggcaa 240
acctgtgctc tctggggaag ctgcagaagc agtgcactca ggtacatctg taaagtcatc 300
tagtggcccc ttccctcctg ctccagaagg ccttactgca ccagaaattg aaccagaagg 360
ggaaggccaa ctcgag 376

<210> 520
<211> 334
<212> DNA
<213> Homo sapiens

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taggagattc ccttgtgccc cttccccgcc aatgtcccct agcccagaag taaccaccgt 120
tctcacctcc atcatcagag atcagttttg ctggcctaga atttcaccca aatgtcgtca 180
tacatgtgtt ttcttctgtg tgtggcctcc tttcatcaat acaatgtttt ttatttttgt 240
atatttttg agacagggtc ttgctctgtt ctccttccgt agtgcagtgg ggcgccatca 300
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<210> 521
<211> 508
<212> DNA
<213> Homo sapiens

<400> 521
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ccagaagatt tgtaatgggg gattatctcc tggtaaccca ggagattcta aggacatgaa 180
ggaaattgag cccaattatg aaagtccctc tagtaataat caggataaag attcatcaca 240
ggcttccaaa agctcaataa aagttccaga gacccacaaa gcagtccttg ctctccgatt 300
agaagagaaa gatggcaaga ttgctgtaca aactgagaag gaagaaagta aagcctctac 360

agatgttgct gggcaagcag taaccataaa ccttgtcccc acagaagagc aagcaaaacc 420
ttaccgagtt gtgaacctgg aacagccatt gtgcaagcca tatactgtcg tggatgtgtc 480
agcagccatg gccagtgagc acctcgag 508

<210> 522
<211> 412
<212> DNA
<213> Homo sapiens

<400> 522
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taatagagat tttgatgatg agaagatcct tattcagcac caaaaagcaa agcattttaa 120
atgccatata tgtcacaaga aattgtatac aggacctggc ttagctattc attgcatgca 180
ggtacataaa gaaacaatag atgccgtacc aaatgcaata cctggaagaa cagacataga 240
gttggaaata tatggtatgg aaggtattcc agaaaaagac atggatgaaa gacgacgact 300
tcttgaacag aaaacacaag aaagtcaaaa aaagaagcaa caagatgatt ctgatgaata 360
tgatgatgac gactctgcag cctcaacttc atttcagcca cagccactcg ag 412

<210> 523
<211> 337
<212> DNA
<213> Homo sapiens

<400> 523
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tcattttgaa agcaactaac ttctcaggtt tttcttatct ttcatcatct ggataaattc 120
cctatcacat gagatcatgt tctaggaatt ccggactgta ccaactccaa gaaaaccacc 180
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cctaggctgg agtgaagtga cgcgatctca gctcactgca accttctcct cctgggttca 300
agtgattctc ctgtctcagc ctcccaagta gctcgag 337

<210> 524
<211> 441
<212> DNA
<213> Homo sapiens

<400> 524
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ccatgcacag cagaagaaag aaaatctggc ttcctttgtt cagtgaagaa cagagagaaa 120
gagaagaatg gatggcaggg tggggggtgg ggaggaaagg aggaagggat cactttaatt 180
acaagcacac ccttttgggg gtacataagc agaatagctg tgaagaaacc ctcacccaaa 240
taagccactt tgtttttaac acacacacac aaattcaaat ctacccaaat atctatcagt 300
gaggctctag ggtgttggca gagggcccct tctcttgatc tttggcatat acctgagtgt 360
tgggcagagt gctgacacta cctactgctg tgtgatcatc ttcctgtaca gatgggggga 420
aaaaaacaga aggctctcga g 441

<210> 525
<211> 342
<212> DNA
<213> Homo sapiens

<400> 525
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cagcatcaga cgttaacaca tcaggcaccc ccaccccccac aacaggtatc ctgtaattct 120
ggtaagtttt tgtctcctgg tttgtgtttg gctaactgtg aattaggatc tgtcctttgt 180
tatttagagc tcatgtagta tttactacca aaacctcttt acatctcttt ccttgctata 240
atcctatagt tgtaactcat ttaattcata gactgacctg gcgactttct tgattaaaat 300
ttattgtggc aacataggca aacccaacaa ccccttctcg ag 342

<210> 526

<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (331)

<220>
<221> unsure
<222> (367)

<220>
<221> unsure
<222> (376)

<220>
<221> unsure
<222> (402)

<220>
<221> unsure
<222> (406)

<400> 526
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gttctgtccc acctaataat agctctcatt catggagaga ctgcttgtac cttaccaagt 180
cctgtgtttg gcccattatc gctttatacc atcatggctt taatacactc ctagtagggg 240
agggtttgtt agtcccatgt tgcagagaca aaaactgagg cttggagaga gtgactggat 300
tgtgtgatgg tcatatagga agtaagtggc ntgactggga tatgacatag gagaattgtt 360
ctttttnttt ttctcnacac tctctgttgt gtgcagggtc tnattnagat aaagataggg 420
aattggggct aggtggggtg gctcacacct ataatcccag cactttaagc tcgag 475

<210> 527
<211> 437
<212> DNA
<213> Homo sapiens

<400> 527
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ctgctcaggc tggaagggag cttaccaagg tgaggatggc ccgccagaag atgagtgaaa 180
tctttccctt gactgaagag ctctggctgg agtggctgca tgacgagatc agcatggccc 240
aggatggcct ggacagagag cacgtgtatg acctctttga gaaagctgtg aaggattaca 300
tttgtcctaa catttggcta gagtatggcc agtactcagt tggtgggatt ggtcagaaag 360
gtggccttga gaaagttcgc tccgtgtttg aaagggctct ctcgtctgtt ggtttacata 420
tgaccaacag actcgag 437

<210> 528
<211> 401
<212> DNA
<213> Homo sapiens

<400> 528
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ttgtgcagaa gacctcggcc ctcctgtggc tgctgcttct aggcacctcc ctgtcccctg 180
cgtggggaca ggccaagatt cctctggaaa cagtgaagct atgggctgac accttcggcg 240
gggacctgta taacactgtg accaaatact caggctctct cttgctgcag aagaagtaca 300

aggatgtgga gtccagtctg aagatcgagg aggtggatgg cttggagctg gtgaggaagt 360
tctcagagga catggagaac atgctgctag gaagactcga g 401

<210> 529
<211> 204
<212> DNA
<213> Homo sapiens

<400> 529
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tgggcacagt gggggctggg ggctggagct caggcaggat ggactaggct tgtggaggag 120
cgggtgggca tgagcatgtg aggacatgct gggagggctc aggaggtggc acagacattg 180
ccaaggccac tgcagggcct cgag 204

<210> 530
<211> 592
<212> DNA
<213> Homo sapiens

<400> 530
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tcaaatattt aagccagcct tatgagccat tcatttatat gaaatataaa attttattta 120
ttttgagatg gagtcttgct ctgttgccca ggctggagtg cagtggtgtg atctcagctc 180
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ggattacagg catgcaccac catgcccagc taattttttt tgtattttta gtagagacgc 300
aggtttcact gtgttggtca ggctggtctt gaactcgtga cctcaaatga ttcacctgcc 360
tcagcctccc acaagtgctg ggattacagg catgaaccac tgcacccggc cacattttat 420
atttttaata taaaggcaga aaatcataat gtttcaaatt atttgttac ctaggtatct 480
actcttataa atcaagagtg ggtcttttaa aaaatatttt tgtaagatat tgaaggcctt 540
tatatattaa ttattctatc caattagcat gcatattcct gttttactcg ag 592

<210> 531
<211> 347
<212> DNA
<213> Homo sapiens

<400> 531
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atcgctcagg gcccattttc ttcctttcct cctcctccaa gggtggggaa agagcatcag 120
aaggtctagg tggccccagg cccaaacaat gctcctttaa aaggaaacta gattgttaca 180
aaggtcagag gctgaaaagt tatttccgcc ttttatccct ctaaattctt cacttcctga 240
aaaaacaaac aaacaaaaaa gccactgagg gcccttggac taaatccagg cctgagttgc 300
tgggcagagg tcagtcttgt ccagacatgg gaaaaaaata actcgag 347

<210> 532
<211> 368
<212> DNA
<213> Homo sapiens

<400> 532
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attccattac gtaccgggaa gttttggaga gcggactggc gcgctcccgg gagctgggga 120
cgtcggattc cagcctccag gacatcacgg agggcggcgg ccactgcccg gtgcatttgt 180
tcaaggacca cgtagacaat gacaaggaga aactgaaaga attcggcacc gcgagagtgg 240
cagaagggat ttatgaatgc aaagagaagc gcgaggacgt gaagtcggag gacgaggacg 300
ggcagaccaa gctgaaacag aggcgcagcc gcaccaactt cacgctggag cagctgaacg 360
agctcgag 368

<210> 533
<211> 315

<212> DNA
<213> Homo sapiens

<400> 533
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tccatcagcc agctccggct ggctgaggca acccagcact gaaggggtta aggccagcca 120
gcatgtgtgg ctgttaatga ttgctaccca ccagggacct ggtgagtatt aaaggaaaac 180
cttctcccta ctcctcagtg tgaaaggagt cagggctaga ggcagcagag ggaacagcaa 240
agaagagccg ccacaatgaa agacggaaca catttctaca cccagtgact ggccaggtcc 300
cagaggatac tcgag 315

<210> 534
<211> 486
<212> DNA
<213> Homo sapiens

<400> 534
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tcaaaaaaaa aaaaaaaaaa aagaatagta aatcaaatac aggtacagtc ccttagaata 120
gggtccccaa cccccggttt gtagtctgtt aggcatgggg ttgcacagct ggtgagcaag 180
cattactgcc tgagccccgc ctcctgtcag atcagcggtg gctctagact ctcacaggaa 240
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tctaaggcac tgcccactcc catccatgga aaaattatct tctacgaaac cagtttttgg 360
tgccaaaaag gttgaggact gctgccttgg aatatgaagc aaactttggg tgggtctgtt 420
agacaagact cccagatgac ttggaaatgg catgctgtca gcttttttttg tcttattgcc 480
gagccg 486

<210> 535
<211> 305
<212> DNA
<213> Homo sapiens

<400> 535
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ttgcttgttc tggtgaacag agaatcttaa gagctgttag aaagtagcac ttgatgcaag 240
ggatgttttg aaaagaaaaa attggtaatg cgaatgtata gaaagtaaag gaaggtatgc 300
tcgag 305

<210> 536
<211> 352
<212> DNA
<213> Homo sapiens

<400> 536
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aggaaaaact tggaaagttt tgaatggaaa gttcatagag agctgcctcg ag 352

<210> 537
<211> 387
<212> DNA
<213> Homo sapiens

<400> 537
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tgtaaggtgg gggtaatagc agttcccatc ccatgggctg tcatgaggac tggatgaggt 120
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ggccagaggg tgagtaacca gctcgag 387

<210> 538
<211> 529
<212> DNA
<213> Homo sapiens

<400> 538
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acaagcggag cttctgaact tctcggctct cggcagcggc tgtatttcct ctggcctggt 180
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ggagcagcgt gcccttctga aaaccggtgg ctaaatgtct cttctgttta tatcaggcgt 420
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<210> 539
<211> 500
<212> DNA
<213> Homo sapiens

<400> 539
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agacaaaaaa gaagaccaag aaaagaaaaa catttttgtg aaagaagagc aagaactacc 240
accaaaaata attgaagtta ttcatcctga aagagaaagc aatcaagaag atgttctagt 300
aagagaaaag tttaaaagaa gcatgcagag aaatggtgtg gatgacacac ttggcaaagg 360
cactgctccc tacacgaaag gccccctcag acaaagaaga cattactcat tcacagaagc 420
aactgaaaac ctgcatcatg ggcttcctgc ttcagggggg ccagccaatg ccggcaacat 480
gaggtacagt catactcgag 500

<210> 540
<211> 374
<212> DNA
<213> Homo sapiens

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aaacatctga aaagatgctc aatttcggaa ataataaaga aataaagaga aaatcaagaa 120
aactttttcc ctaaaagatt gaaaataaga caatcgaggc tgactagggt ggagcaggtg 180
ctgccctacg tgccagccag gggtgatggg tgcagcccca ccgagcactg gcgggtggta 240
atggtggtgg accagcagct ggagatgctc cttcgaggga gcagtcgggc agtcacaggg 300
ctgaaaagta cctcaagccc tcacacaggg accccaagtc ttgggggagc gggtacagtg 360
acagatgact cgag 374

<210> 541
<211> 357
<212> DNA
<213> Homo sapiens

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gcaccactca gcacctcctc ctggccctac ccgtccgcca tggaatccag ccactgagaa 120
aggcaccatt gaaacagaca taatcatggg tcagaagatg tgactcagcc tctactcaaa 180
tctgtttgtc aaaccaaaag gtgcttcgtg tttaagtcaa actatcccta atgcattttc 240
cattctcttc aaaaaccaca gccatcagtt ttaaaaaaag acagaaaaca tgaagcacac 300
ttctcttgcc tggcttacca ttttctttga tccattaaaa tccaagagta cctcgag 357

<210> 542
<211> 557
<212> DNA
<213> Homo sapiens

<400> 542
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tgccttactg aaatccagag cctaaccttc aatcccaccg ccggctgcgc gtcgctcgcc 180
aaagaaatgt tcgccatgaa aactaaggct gccttagcta tctggtgccc aggctattcg 240
gaaactcaga taaatgctac tcaggcaatg aagaagagga gaaaaaggaa agtcacaacc 300
aataaatgtc tggaacaagt gtcacaatta caaggattgt ggcgtcgctt caatcgacct 360
ttactgaaac aacagtaaac catctttatt atggtcatat ttcacagcac caaaataaat 420
catctttatt aagtagatga aacattaact ctaactgtga caaagaagac cacaaatagt 480
tatcttttaa ttacagaaga gtttcttaac ttacttttgt aagtttttat tgtgtaagtt 540
tataatgcag gctcgag 557

<210> 543
<211> 406
<212> DNA
<213> Homo sapiens

<400> 543
gaattcggcc ttcatggcct agtggccttt cagggagctg agggaagcaa gattctaaga 60
ataattttta actattagta ttgatggcct gtggacctga gcactttaca cgactactcc 120
caatccttag gactcggagg caggcgctgt tcacatcccc cagtttacag gggggagaaac 180
tgaggcccag agaggttaag cagcttgccc agggccacac agctagcgag aagtggagcc 240
aggatctggt cccatccact gcaatccaaa gtctgtgcta tgagccgccg tcctgtcgtg 300
tcctgtctgc cttgtttgaa agtaggcgtc cccttcacgg gccaattgac cgtgcaactc 360
tttgggtgag gcatggggga ataaacagaa taaaaggttg ctcgag 406

<210> 544
<211> 400
<212> DNA
<213> Homo sapiens

<400> 544
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attctaaaca acagttgaat gagctagatc tctgagtaac accctgggca gaatctaaga 120
gctgaccttc acattcacta tctttaaaac taaaaagcta ctccagctac aactgacttg 180
aacaactcag aggattttac aaagttacct ctggacattt caaacgaccc cttaactctg 240
gtggctcacc ctcaagcgcc tgagataatg acattgcatg aatgaggcca tgaggaaaac 300
cccacctatc tttcagtctt gtttttgaga agcacgaaca catacaatca cagtgagcgc 360
acactctcag tagcagtggt gctgagtgtc ctgcctcgag 400

<210> 545
<211> 306
<212> DNA
<213> Homo sapiens

<400> 545
gaattcggct tcatggccta cacgcgtgac ccggaaggtc ttcccgccac actccagagc 60
ggatgtgagg ggcgccgatg gcggagggaa cggcggaggc tcctctagag aatggtggtg 120
gtggcgactc gggagccgga gctttggaac gaggagtggc gcccattaag cgtcaatacc 180

tcaccaccaa ggagcagttt caccaattcc tggaagccaa agggcaggag aagacttgcc 240
gggaaaccga ggtaggagac cctgctggca atgagctggc tgagcctgag gccaagcgga 300
ctcgag 306

<210> 546
<211> 288
<212> DNA
<213> Homo sapiens

<400> 546
gctcgagtgg tccaggcact ggggtacatg aagaggcctt tgagatattt tctgttggct 60
tttctgggta tatcatcctc agctgggcgc tttcctgcag cccttgtttc actttctggc 120
tctccctcac tctctggctc tctttcactg tctggctctc cttcaccctc tgcccttccc 180
cctctctctg gctttccctc tgtctttgat cctccctgca tctctgactt tcccttcctc 240
tcttttatca gggttggggg tcacagttct tgtctagacc tgctcgag 288

<210> 547
<211> 303
<212> DNA
<213> Homo sapiens

<400> 547
gctttgatga ggacccctcc atcttctccc ctggcagtgt ctactttgag aagggccagg 60
atgctgggct ctgcagcatc aatcctgtgg cctgcctccc cgacctggca gcctgtgtcc 120
cggacttacc cccttttctct taccacggct tctagtcctg agggtgtggc gggcggcgtg 180
gttaggcaca tgtacttttc cctgtttcta ctttctattc tccgtgtttt tatcacacct 240
gctccccaga ttcccacccc ctcaatgttc ctctcacacg aaaccccccat cagtaccctc 300
gag 303

<210> 548
<211> 370
<212> DNA
<213> Homo sapiens

<400> 548
gaattcggcc ttcatggcct acttgcgtgc aacatcttaa ttcttactta ggtatattgg 60
atccttttat attagtgttt cttggtttct ctttggccac acttgaatat tttccagaag 120
atctgctaaa ggcaattttt aacatcaaat tcttagctag attggattct caacttgaaa 180
ttttatctcc atctcgaagt gcaagagtcc agtttcatct tatggagtta aatagatcag 240
tctgcttgga atgccctgag tttcagattc catggtttca tgaccgcttc tgtcaacaat 300
ataataaagg tattggtggc atggatggaa cacaacagca gatttttaaa atgttagcag 360
agatctcgag 370

<210> 549
<211> 353
<212> DNA
<213> Mus musculus

<400> 549
gaattcggcc aaagaggcct agcagagctt tcatatccac gatgcgtttt ctggccgcca 60
cgatcctgct gctggcgctg gtcgctgcca gccaggcgga gcccctgcac ttcaaggact 120
gcggctctaa ggtgggagtt ataaaggagg tgaatgtgag cccatgtccc accgatccct 180
gtcagctgca caaaggccag tcctacagtg tcaacatcac ctttaccagc ggcactcagt 240
cccagaacag cacggccttg gtccacggca tcctggaagg gatccgggtc cccttcccta 300
ttcctgagcc tgacggttgt aagagtggaa tcaactgccc cccccaggtc gag 353

<210> 550
<211> 295
<212> DNA
<213> Mus musculus

<400> 550
gaattcggcc aaagaggcct aaacgttaaa gcaagagaaa cgatatctgc aggacatctg 60
gtcctaaact ggaacagaga cgcttggaat ttgtttttgt ttttgtttgt ttgtttgttt 120
tttcttgaag tgccaaaggt caattttaca gaagatgagt ttaaaaatgt ttggacattt 180
cttggaggtg gctgtgtggg gaacggcttg cttacaggta cagcaggtac aaccgcctga 240
cagtctcaca ggttgtatcc cactccttac ctgtggcccc acccagcaag tcgag 295

<210> 551
<211> 249
<212> DNA
<213> Mus musculus

<400> 551
gaattcggcc aaagaggcct agtggcaagg aaagtttcac ttgggtgttc catcagtggt 60
acaactaact caaggatttt tgcaacattg cagataacca tgaaatcatt ttgcgtacta 120
cacttagtgg tgaggtacgg ctgcatagtc atggcatgtt taaccatgag ttggggtctt 180
attttgctga ataagaacaa agtggttata caagctacca atcttccaga atttacacca 240
acggtcgag 249

<210> 552
<211> 341
<212> DNA
<213> Mus musculus

<400> 552
gaattcggcc aaagaggcct aagaagaaca aaggacccaa gaaaatgccc aaatccaaaa 60
aaaagaagcc tttaaaaaag aaacccacaa ctgtaccctt acctcaggca aagcagcaga 120
agcaaaagca agcaaatgga gttgttggga gtgaagctgc aataaaggag gaagaagacg 180
acatttctga caagggcagt gattctgaag aggaagaaac caatagagat tctcagagtg 240
agaaagaaga tggtagtgac agggagtctg atagagagca agatgagaaa caaagcaaag 300
atgatgaagc agagtggcaa gagttacaac agagagtcga g 341

<210> 553
<211> 580
<212> DNA
<213> Mus musculus

<400> 553
gaattcggcc aaagaggcct agaaccacaa gactatgaat gaaaaggctt ggaaacgctg 60
gtgtacacag atcctctctg ccctaagcta cctgcactcc tgtgaccctc ccatcatcca 120
tgggaacctg acctgtgaca ccatcttcat ccagcacaac ggactcatca agattggctc 180
tgtggctcct gacactatca acaatcacgt gaagacttgc cgggaagaac agaagaacct 240
acactttttt gcaccagagt atggagaagt cacaaacgtg acaacagcag tggacatcta 300
ctcctttggc atgtgtgcac tggagatggc agtgctggag attcagggca atggcgagtc 360
ctcatatgtg ccacaggaag ccatcagcag tgccatccag ctactagaag actcattaca 420
gagggagttt attcaaaagt gcctgcagtc tgagcctgct cggagaccaa cagccagaga 480
acttctgttc cacccagcac tgtttgaagt gccctcactc aagcttcttg ctgctcactg 540
tatcgtgggg caccaacaca tgatcccaga gaacgtcgag 580

<210> 554
<211> 372
<212> DNA
<213> Mus musculus

<400> 554
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gtccattagt gctgtgaaaa gaagttcctt actccttgga ttcaccggtc agagcaaaaa 120
acgcagttac cactgaagta aagccgaaca aacttctaca ctgatctcag agagcaaggg 180
caaggacgca cgttcacgga ctcgcttttt tcaacagaca acaaagacac tgtggtagaa 240
tttcatttca aaatgaaggc ttttgtttgg accctaagtg tactactctt cctactgggc 300

agtggtcatt gcaaaggagg acaactcaaa ataaaaaaaa taacccaaag gagatatccc 360
cgtggagtcg ag 372

<210> 555
<211> 302
<212> DNA
<213> Mus musculus

<400> 555
gaattcggcc aaagaggcct aggctgagga actgctgtgg agaaaggtat actatgaagt 60
tatccaactt atcaagacta acaaaaagca catccacagt cggagcacct tggaatgtgc 120
ctacaggact catctggtcg ctggcattgg cttctaccag catctccttc tctatatcca 180
gtcccactac cagctggaac tacagtgctg catcgactgg actcacgtca ccgatcccct 240
catgggattc aagaagccag tatctgcttc aggaaaggag atggattggg caaaccgtcg 300
ag 302

<210> 556
<211> 284
<212> DNA
<213> Mus musculus

<400> 556
gaattcggcc aaagaggcct agtggaactc atttttgttg ttgttgttga agataaggca 60
atttaaactt ttttttaaaa aaaaactttt tctgcttctg tggaactcat ttttgttgtt 120
gttgttgttg tttccaaaaa gttatggtgc tgtataggtg ctttctgttg agcctgcaga 180
gtgtgagtgt aggtggtact ctctttggta gacagcgtag ttgggaacac ctttggtaca 240
tacaaaactg gtgtggcgat gctctgacta gcacagctgt cgag 284

<210> 557
<211> 665
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (605)

<400> 557
gaattcggcc aaagaggcct agcccagctc tgcacccaat catgaagctc cggaaagctt 60
ggctgttggt cctgctcttg gcgctgacac agctgctggc tgctgcgagc gccggagatg 120
cacaggaaga tacttcagat acagaaaatg ccactgagga ggaagaggaa gaggatgacg 180
atgacttgga agttaaggaa gaaaatggtg tttgggtctt aaatgatggg aactttgata 240
actttgtggc tgacaaagat acagtgctac tggagttcta tgcaccatgg tgtggacact 300
gcaagcagtt tgctccagaa tatgagaaaa ttgccagtac tttgaaggat aatgatcctc 360
ccattgctgt agcgaagatc gatgcaacct cagcatccat gctagccagc aaatttgatg 420
tgagtggcta ccccaccatc aagatcctga agaagggaca ggccgttgac tatgatggct 480
ccaggaccca ggaagaaatt gttgccaaag tcagagaagt ttcccagcct gattggacac 540
ctccacctga agtcactctt tcattgacta aagataactt tgacgatgat gtcgactgtg 600
tctanacaaa gggtggtggg acgtcaggaa gagctcccca tggattcatg tgcacccatc 660
tggag 665

<210> 558
<211> 536
<212> DNA
<213> Mus musculus

<400> 558
gaattcgaaa gaggcctagg gagggcggag gaagcggact gttccggagc tctgcctagc 60
cgggcccaac ctttgctcca gagatcatgg ctgtcgagga tgtggtggcg actggcgccg 120
acccgagcga gctagagggc ggcgggctgc tgcacgagat tttcacgtct cctctcaacc 180

tgctcctcct gggcctctgc atcttcctgc tctacaagat cgttcgcggg gaccagcccg 240
gtgccagtgg cgacaacgac gacgacgaac cacccccgct gccccgcctc aagcggcgcg 300
acttcacccc tgccgagctg aggcgtttcg atggcgtcca ggacccgcgc attctcatgg 360
ccatcaacgg caaggtgttc gacgtgacca aaggccgcaa gttctacggg cctgaggggc 420
catatggggt ctttgccgga agagatgcat ccaggggcct tgccacattt tgcctggaca 480
aagaagcact gaaggatgag tatgacgacc tttctgacct cacccccata gtcgag 536

<210> 559
<211> 229
<212> DNA
<213> Mus musculus

<400> 559
gaattcggcc aaagaggcct aggagacttc tatacattct ttcttgtcaa gaagattact 60
tgttcaagat attccataaa aagcaactgg aataaacttc acgtaacaga gactaagacg 120
gtgggtactg atgatcgtaa ccgcctgggc agttggcgtc ttactagttt atggtgtgaa 180
gacatgccag attgaaaact caaaacaaaa cacgggcaca actgtcgag 229

<210> 560
<211> 277
<212> DNA
<213> Mus musculus

<400> 560
gaattcggcc aaagaggcct atccagagtg attttctcta gctacagtct gtgcgcccct 60
tcaatccttc tttagtcgtt tagcttttgc gatgttttct tgccattttt gtttcttctt 120
ttgctccttc tctctggctt caatcatctt ggccaacttc caggacagta cagcactagc 180
taggaacagt ggtgtgagcg ccaagataac tgtggtaagg aagccatatg ggtcctttgc 240
agcccactcc acaacatact cagcccaagc tgtcgag 277

<210> 561
<211> 308
<212> DNA
<213> Mus musculus

<400> 561
gaattcggcc aaagaggcct aagcgctaag cctggagtgt gggcactgca gtttcagagg 60
caccgattat gagaatgtgc agctccacat gggctccatt catcctgagt tctgtgatga 120
tatggatgcc gggggcctgg gcaagctcat cttttaccag aagagtgcaa agctcttcca 180
ttgccataag tgcttcttca ccagcaagct gtacgccaat gtgtactatc acatcacggc 240
cagacacgca gcctcggaca agtggagtga gcagccgaaa gagcagccga gcaaagacac 300
ccgtcgag 308

<210> 562
<211> 558
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (23)

<220>
<221> unsure
<222> (26)

<400> 562
gaattcggcc aaagaggcct agnagnagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaactt tgtatattgt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
aaaagaaaaa aaagaaaaag aaaagaaaaa gaaagaaacc attttgacag caagcacctt 180

ctgtgaagtt ctaaaaaggg aaaggatctg cgtgtgtctg gtcatttaaa cacatattca 240
gttctgtgta ctctagagtt tgacggtctg tatatttttc aggcagccaa gccaagttat 300
tgtatcattt gggtgtagaa actgtgtttt cctgtgtata tgtgatcaat atccaagggt 360
ctaaaagtta gcttgcttgt attggaattt aaaacaacaa caacaaaaag aaatatgtca 420
ctgtgttttc aatttgtatt ttcacaactg cttccttttc tatggctcct ggttcatatc 480
tcacagtgtg tagggatcat agagaacacg cagagccgca agctgtctgt cacatccagc 540
ttccgcagtt cagtcgag 558

<210> 563
<211> 263
<212> DNA
<213> Mus musculus

<400> 563
gaattcggcc aaagaggcct atagagagtg atagtgcaaa acccagaatg gatgtcctct 60
ttatagccct ccttgttgca ccactcatcc tgggacagga atacgaccat gaagagcagc 120
tggaagaggg tgattactat caagtggcat attattatta cacagtgacc cctaattatg 180
atgacttcag tgtaaacttc actgttgatt actccgtgtt tgagtcagag gataggttga 240
acaggttgaa caaggaggtc gag 263

<210> 564
<211> 537
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (434)..(435)

<400> 564
gaattcggcc aaagaggcct aatttgacaa gattcatttc acaaggtgcg tcactctgag 60
gacatgcagt ttggcttctc ctacttttat tacctcatga gtgcagttca gcccctcaat 120
atttcccaag tctttcatga agtagacaca gaccaatctg gtgtcttgtc tgatagggaa 180
atccgaacac tggccacgag aattcacgac ctacctttaa gcttgcagga tttgacaggt 240
ttggaacaca tgttaataaa ttgctcaaaa atgctccccg ctaatatcac tcaactcaac 300
aacatcccac cgactcagga agcatactac gaccccaacc tgcctccggt cactaagagt 360
cttgtcacca actgtaagcc agtaactgac aagatccaca aagcctataa agacaagaac 420
aaatacaggt ttgnnatcat gggagaggaa gaaatcgctt tcaagatgat acgaaccaat 480
gtttctcatg tggttggcca gttggatgac atcagaaaaa accccaggac agtcgag 537

<210> 565
<211> 418
<212> DNA
<213> Mus musculus

<400> 565
gaattcggcc aaagaggcct agggaagtgc gaaatcaaag ttgcgcaacc caaagaggtg 60
tacaggcagc agcagcaaca acagaaagga ggcagagggg ctgcagccgg cggaagagga 120
ggtgctaggg ggcgtggaag aggtcagggc caaaactgga accaaggatt taataactat 180
tatgatcaag gatatggaaa ttataatagt gcctatggtg gtgatcagaa ctatagtggc 240
tatggcggct atgattatac tgggtataac tatgggaact atggatatgg acagggatat 300
gcagactaca gcggtcagca gagcacttac ggcaaggcgt cccgaggggg cggcaatcac 360
cagaacaatt accagcccta ctaaaggagg acgctgggag agcagcggtg aagtcgag 418

<210> 566
<211> 420
<212> DNA
<213> Mus musculus

<220>

<221> unsure
<222> (268)

<400> 566
gaattcggcc aaagaggcct agtggatgga gcagtcacag tgattactat gcaaattatt 60
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ttagggatcc tcgcacctgg gaccggaggt actggtatga ctctgaacat gacccataca 180
ggaaggacca ctatgcttac agtgacaggc ctgagaaatg tgatgatcac tggaggtatg 240
accctcgctt cactgggagc ttcgacgntg acgctgagat ccacagggac ccctatggag 300
aagaagcaga cagacgcagc atccacagtg agcactcggc acggagcctg cgcagcactc 360
acagtctgcc cagccgccgc agcagcctca gctcccattc acaccagagt cggggtcgag 420

<210> 567
<211> 385
<212> DNA
<213> Mus musculus

<400> 567
gaattcggcc aaagaggcct agaaaatgaa aaactcacag aaacctcaga agatagattc 60
agaaataagt cccaagaagg ataatgaaga atttctacaa aataaaaaaa agaaaagggg 120
taccactgac cttagtgtag aagctttgcc caaaggaaag ctaaggacca aagattccag 180
tacctctgaa atggtgaaat cttcaacaat gagttcttct aaggcaaaga gagaaaagca 240
atcagtggtt ccagtcataa tggcaaaaga caatgatggt aaaatgcctg acgaagatgc 300
cctggaggag gattcagata gtgctagtga gctaggaagt gatgaggaat ctgaagatga 360
aatcataagt gatggtatcg tcgag 385

<210> 568
<211> 282
<212> DNA
<213> Mus musculus

<400> 568
gaattcggcc aaagaggcct actagacctg cgtcgacgga gctgatttgc cattggtgcc 60
agtctcaaac cccgaagcca cgatttgcct tatttttcac tgtttggctt gatctattcc 120
catccctgag acagagcccc tgccttaaag actggttttg taatgacaga cgtctccggc 180
actcagaatc actttaattt catagagttg ggtttttat ttttgttttt ttttttccc 240
aagtgcacag aagggctgct cacacccacc agactagtcg ag 282

<210> 569
<211> 329
<212> DNA
<213> Mus musculus

<400> 569
gaattcggcc aaagaggcct aaaacctcat gagtgctttg ccactgaata catccattgt 60
gggtttggct tgaatggtgc ttaaaaacca tccctgagca gaggggaagc tgttaaactg 120
tcagtcaaag cagtttggga aataaaagag actgggccct gggtcatctt actagataac 180
actttgtaaa aattggttct gaaaaccctg tttatttgca tatttgtgaa aaccctgtat 240
atgtggttgt tttgtgagtg tgcttaaaag tggtgtgacc agggcaagat cgctcattgg 300
aacagctgtg tggaatgggg aaagtcgag 329

<210> 570
<211> 280
<212> DNA
<213> Mus musculus

<400> 570
gaattcggcc aaagaggcct atctgtgtct gtggacctga atgttgaccc atcgcttcag 60
atcgacatac ctgatgcact cagtgagaga gataaggtca agtttacagt gcacaccaag 120
accacactgt ccacatttca gagcccagag ttttctgtta caaggcaaca tgaagacttt 180

gtgtggctgc atgacactct tactgaaaca acggattatg ctggccttat tatccctcct 240
gctcctacaa agccagactt tgatggccac gagagtcgag 280

<210> 571
<211> 291
<212> DNA
<213> Mus musculus

<400> 571
gaattcggcc aaagaggcct aaaaaaaagg ttttattttt cccttcttgt agtaagtgct 60
ctagttctgg gtgtcttcac tgccttgccc tggaactgtg tttagaagag agtagcttgc 120
cctacaatgt ctacactggt cgctgagttc cctgcgcact gcacctcact gtttgtaaat 180
gctgtgatta ggttccctta tggcaggaag gcttttttt tctttttttt ttttcttttc 240
ttttttttt ttttaaagga aaaccagtca aatcatgatg ccacagtcga g 291

<210> 572
<211> 234
<212> DNA
<213> Mus musculus

<400> 572
gaattcggcc aaagaggcct aatactttat aaataaaaaa aaaaaaaaaa aaaaagaaaa 60
gtgaaatata tatatatatc cccagtaatg atagataagt taccacccag gctctgtttt 120
ttgtttgttt ggctttttgt tttgttttgt tttcttcccc tttcccccca atcagaacag 180
acacagttgg tggggacagt aatgtgtgga gtcttgaaac caggaagcgt cgag 234

<210> 573
<211> 273
<212> DNA
<213> Mus musculus

<400> 573
gaattcggcc aaagaggcct aagcatttat ttaagtggag aattaattag ttttgtattc 60
cctattttac aaaaattgat aaagatatag ttcatggatt ttattctgct gttatgggtt 120
tatttctatg ggtctgaaag cataacatgc tcttccatgg ttttcccctc tcggacccag 180
ccctggcttg gcaggcctct ttccacagtt aacagtgttg atctctgcta ctcaaccagt 240
ccttctagga atgaatctcc catcagagtc gag 273

<210> 574
<211> 251
<212> DNA
<213> Mus musculus

<400> 574
gaattcggcc aaagaggcct aaagaagata accacatcaa gatggttggg aagctgaagc 60
agaacttact cttggcgtgt ctggtgatta gttctgtgac cgtgttttac ctgggccagc 120
atgccatgga gtgccatcac cgaatagagg aacgtagcca gccagcccga ctggagaacc 180
ccaaggcgac tgtgcgagct ggcctcgaca tcaaagccaa caaaacattc acctatcaca 240
aagaagtcga g 251

<210> 575
<211> 300
<212> DNA
<213> Mus musculus

<400> 575
gaattcggcc aaagaaccat ggttggtggg gtcatgatcc ccaatgtgga aaccatcctt 60
ggcttcacag gagcaacgat ggggagcctc atctgcttta tctgcccggc tctgatctat 120
aagaaagccc acaagaatgc cccctcagcc caggtggtgc tctgggtcgg cctgggcatc 180
ctcgtggtca gcacactcac caccctctct gtgaccgaag aagctcctct ggacttgacg 240

caagaagctc gcagcggcca ccgaggagat gctgagggcg caatgaaggt gaaagtcgag 300

<210> 576
<211> 353
<212> DNA
<213> Mus musculus

<400> 576
gaattcggcc aaagaggcct agcagagctt tcatatccac gatgcgtttt ctggccgcca 60
cgatcctgct gctggcgctg gtcgctgcca gccaggcgga gcccctgcac ttcaaggact 120
gcggctctaa ggtgggagtt ataaaggagg tgaatgtgag cccatgtccc accgatccct 180
gtcagctgca caaaggccag tcctacagtg tcaacatcac ctttaccagc ggcactcagt 240
cccagaacag cacggccttg gtccacggca tcctggaagg gatccgggtc cccttcccta 300
ttcctgagcc tgacggttgt aagagtggaa tcaactgccc cagtacagtc gag 353

<210> 577
<211> 292
<212> DNA
<213> Mus musculus

<400> 577
gaattcggcc aaagaggcct aaaagaagga accgtgaaca ttttagacac ccttttcttt 60
ggggtaggct ctgccccagg cgccgtctcc ttcccccccc caaacactaa tgcatttccc 120
taacctagtc acctcgttcc taaaggcttt cctaccccag ccaaatctcc aaaagtgagt 180
caaggggcta aaaaacaagg ctggcctcat ttgctggacc aaatctacag ggagaacccc 240
tgagtgaggt tgtccaggga attgtcccct ggtgagggaa gcaggggtcg ag 292

<210> 578
<211> 351
<212> DNA
<213> Mus musculus

<400> 578
gaattcggcc aaagaggcct agaaaacaaa aaagaacaag caggagatag cgtttgtcct 60
ccctaaccac acagcatcat ctcaccggct cgtgggactt gacgtgaatt ctgtgggtta 120
atgcaccagg cttactagtg tccattttca tccaagatcc ttactctcta acgttcttgg 180
tcctattgaa gcatttcagt atctaagcat actgcaatgt taatacccaa gagaaaagcc 240
attacgtacg tattctggtc acacgatcgg tgtggcaccg ttttatttgt tactgttgtt 300
gttttatttt gttgtttctg tttttaaat aaactatcac acccagtcga g 351

<210> 579
<211> 281
<212> DNA
<213> Mus musculus

<400> 579
gaattcggcc aaagaggcct acaaaggaca gccctgtctg cacactgagt tactgtggat 60
ttttaagaaa cttcgctaaa gaatttaggc atttctgatt cagttaaagg attgccaatt 120
catcagtccc tgaaactaga gcaatctcaa caggacaaga aaagaaaatg ggctttttaa 180
gtccaatata tgtccttttc ttctgttttg gagttagagt atactgccaa tatgaagctt 240
accgatggga tgacgattat gaccaagagc aaaatgtcga g 281

<210> 580
<211> 317
<212> DNA
<213> Mus musculus

<400> 580
gaattcggcc aaagaggcct aggaaagcaa aggaggatag taccaagcaa gtgtctattc 60
gcagaaatca aagagaggaa accggcgtct caatgtctca gaaagtgaga gaagctggga 120

gagacgtcag ctacttgata gtggtgctct ttggagtcgg ccttacaggc ggcttgttat 180
acgcgatctt caaagaactg ttttttcgt ccagccctaa tatcatatat gggaaagcct 240
taggaaaatg cagaacacac cctgaggtga ttggtgtatt tggtgagcct ttgaaaggct 300
acggggaaag agtcgag 317

<210> 581
<211> 397
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (272)

<400> 581
gaattcggcc aaagaggcct aagtttcggt tttgttttgt tttgttttgt tttgttttgt 60
tttgtttttt taaggaatca gatagccaga aaaaaaaatg ctattgcttg ttttcatgaa 120
cttcagttgt ctctttttag taaacccagt actttccaca aagtcttctc tgaccttccc 180
catcactgga cggttcaccc atcttcttct ccaagtgttt atcccccagc ccaagccttt 240
cctgctgcaa gccaagcctg ctacatttgt tncagaccaa gcttatacac agctcgacaa 300
ctgcactccc actgtaggct ccggtgtgta ctcttgtctt gtgttgggaa ggggaagtga 360
agtgataagc cagaattttt ttcaggaggt tgtcgag 397

<210> 582
<211> 282
<212> DNA
<213> Mus musculus

<400> 582
gaattcggcc aaagaggcct agggcagacg gtgaaactca agtattgctt cacctgtaag 60
atgtttcggc ctcccccggac ctcgcactgc agtgtctgcg acaactgtgt ggaacggttt 120
gaccatcact gcccttgggt gggcaactgt gtggggagac ggaactaccg cttcttttat 180
gcgtttattc tctccctctc cttcttgacg gccttcatct tcgcctgcgt ggttacccac 240
ctgacccttc tttctcaagg aagcaacttc ctctccgtcg ag 282

<210> 583
<211> 246
<212> DNA
<213> Mus musculus

<400> 583
gaattcggcc aaagaggcct agcaaagtat ccagagatca agtccttgat gaaacctgac 60
cacaatctga tctggattgt agccatgatg cttctcgtcc agctggcttc attttactta 120
gtcaaagatt tggactggaa atgggtcata ttttggtcct atgtctttgg cagctgcctt 180
aaccactcca tgactctggc tatccatgag atttcccaca atttcccctt tggccacccct 240
gtcgag 246

<210> 584
<211> 539
<212> DNA
<213> Mus musculus

<400> 584
gaattcggcc aaagaggcct cggcggctga gccagcaaag cgcatccgga gcccccggtcc 60
tcctgcggca gatgtttgaa cccaagagct gcacctatac ctaccttctg ggtgaccggg 120
agtcaagaga ggcagttctg atcgaccccg ttctggagac agcgcatcgg gatgctcagt 180
tgattaagga gctggggctc aagctgttgt acgctgtgaa cactcactgc catgctgacc 240
acatcaccgg cacgggggtt ctccggtccc tgctcccggg ctgccagtct gtcatctccc 300
gcctcagcgg agcccaggct gatttgcata tcggggaagg tgattccatc cgctttggac 360
gctttgcttt ggagactcga gccagccctg gccacactcc aggctgtgtc acctttgtcc 420

tgaacgacca gagcatggcc ttcactggag atgccctgct gatccgaggg tgtggacgga 480
cagacttcca acaaggctgt gctaagactt tgtaccactc tgtgcacgag acagtcgag 539

<210> 585
<211> 419
<212> DNA
<213> Mus musculus

<400> 585
gaattcggcc aaagaggcct actggaagat tacgggactt tgaagtaaaa gatctactta 60
gtctaactca gttctttggc tttgacacgg agacattttc cctagctgtg aatttactgg 120
acagattctt gtctaaaatg aaggtacagg cgaagcatct tgggtgtgtt ggactgagct 180
gcttttattt ggctgtgaaa gcgactgaag aggaaaggaa tgtcccactg gcgactgatt 240
tgatccgaat aagtcagtat aggttcacgg tttcagacct gatgagaatg gagaaggtcg 300
aggttctccc tatagtgagt cgtattaatt tcagaggagt atttagaaga gaagctgaag 360
ctgtcgagac aaacgaaact agtgatagac ctttgggtcc acttcacaac caacaaggg 419

<210> 586
<211> 350
<212> DNA
<213> Mus musculus

<400> 586
gaattcggcc aaagaggcct agagctttca tatccacgat gcgttttctg gccgccacga 60
tcctgctgct ggcgctggtc gctgccagcc aggcggagcc cctgcacttc aaggactgcg 120
gctctaaggt gggagttata aaggaggtga atgtgagccc atgtcccacc gatccctgtc 180
agctgcacaa aggccagtcc tacagtgtca acatcacctt taccagcggc actcagtccc 240
agaacagcac ggccttggtc cacggcatcc tggaagggat ccgggtcccc ttccctattc 300
ctgagcctga cggttgtaag agtggaatca actgccccat caatgtcgag 350

<210> 587
<211> 278
<212> DNA
<213> Mus musculus

<400> 587
gaattcggcc aaagaggcct agcgaaagga ttttaaggaa cagatcatcc accatgtggc 60
cactatcatt ctcctctgct tctcctggtt tgccaattac gtccgggcag ggaccctcat 120
catggctctg catgacgctt ctgactacct gctggagtct gccaagatgt ttaactacgc 180
gggatggaag aacacctgca acaacctctt cattgtgttc gccatcgttt tcatcatcac 240
tcggctggtt atcatgcctt tctggatcct acgtcgag 278

<210> 588
<211> 558
<212> DNA
<213> Mus musculus

<400> 588
gaattcggcc aaagaggcct agaagaagat ttactggaaa ttaagaactt gctgctgtta 60
aataaaactt tgtatattgt cagcctgcag gagataacat tttagtcaaa aaaaaaaaaa 120
aaaagaaaaa aaagaaaaag aaaagaaaaa gaaagaaacc attttgacag caagcacctt 180
ctgtgaagtt ctaaaaaggg aaaggatctg cgtgtgtctg gtcatttaaa cacatattca 240
gttctgtgta ctctagagtt tgacggactg tatatttttc aggcagccaa gccaagttat 300
tgtatcattt gggtgtagaa actgtgtttt cctgtgtata tgtgatcaat atccaagggt 360
ctaaaagtta gcttgcttgt attggaattt aaaacaacaa caacaaaaag aaatatgtca 420
ctgtgttttc aatttgtatt ttcacagctg cttccttttc tatggctcct ggttcatatc 480
tcacagtgtg tagggatcat agagaacacg cagagccgca agctgtctgt cacatccagc 540
ttccgcagtt cagtcgag 558

<210> 589

<211> 249
<212> DNA
<213> Mus musculus

<400> 589
gaattcggcc aaagaggcct aaaaaggtta agttttgttt tccactgaag tactatttaa 60
catctcagaa aaaaaccctg catgttctat agttttatat taaaatccat catttcatat 120
gcactgtatc aaaaacaggt tacttgcctg aacatggtta gtgtactaac aggtctgccc 180
acccctaccc tcacccccag cttcatgcca gcatatgtag atttgagttc taacacagca 240
catgtcgag 249

<210> 590
<211> 340
<212> DNA
<213> Mus musculus

<400> 590
gaattcggcc caaagaggcc tacgttcatc tctggagcat ccgaattgca tcaccggtca 60
gaaaacaact taccgaaacc tcagacaaag cgtcaaatct cagaggatgc tacgagctct 120
ttggctcttc tggatcttgg tggccataac agtcctcttc agcaaacgct gttctgctca 180
ggagtctctg tcatgtgatg cttctggggt gtgtgatggc cgctccaggt ctttcacctc 240
tattccctcc ggactcacag cagccatgaa aagccttgac ctgtctttca acaagatcac 300
ctacattggc catggtgacc tccgagcgca ttacgtcgag 340

<210> 591
<211> 169
<212> DNA
<213> Mus musculus

<400> 591
gaattcggcc aaagaggcct agtcgggctg ttttctggtc atttcttcca tgaaggtctg 60
gtgttctgca atgagggttt tcacctcttc gatctcctgg gggataactt ccttatcttt 120
ctcggtcagt gtggtttccg cccactgtag ccatgccagc aaagtcgag 169

<210> 592
<211> 447
<212> DNA
<213> Mus musculus

<400> 592
gaattcggcc aaagaggcct aatgaaggac atcgtcatgc tggtgaccag tctcgggaaa 60
tacatcttcg catctatgct gggccatgtc atccacggag gaattgtcct gcctcttgtg 120
tattttgctt tcacaaggaa aaacccgttc acgttcctcc tgggcctcct caccccattt 180
gcgacagctt ttgcgacctg ttccagctca gcaacccttc cgtctatgat gaagtgcatt 240
gaggagaaca atggtgtaga caagaggatc agcaggttca tcctccccat tggggccacg 300
gtcaacatgg acggagcagc catcttccag tgtgtggccg cagtgttcat tgcccagctc 360
aacaacgtag acctgaacgc aggacagatt ttcaccattc tagtgactgc cacggcatcc 420
agtgttggag cagcaggtaa tgtcgag 447

<210> 593
<211> 430
<212> DNA
<213> Mus musculus

<400> 593
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ggccctggtc agcaccatcg tccccagctt ctgcttccgg ccccagatca gctcagccag 120
ccccagcgct cacgcctggc tcagccccgc acgcctctct tggcgcttcc aggctccagg 180
cagcgcctgc ggtccatcca gactccatgg catcgctacc gcccactccg gtccctgttg 240
acctcatgtc acctctgccg gtctctactg accgtttggc accgttgcca acctttgcgg 300

tcatggacca cactgtgtcc ttgtgaccag ccctgtaggg ctaccacagg acagcactgc 360
cagcccccac agtctctgct agtccggtgt catcagtgcc ctcggactct caccttgcaa 420
ccacgtcgag 430

<210> 594
<211> 259
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (148)

<400> 594
gaattcggcc aaagaggcct agtttcaagg tctgtcttag ttctcattct caagattgtt 60
tccagttgca agttagaggc aagccagcta gctgcccagc cttaactctg ttcagtgccc 120
tgttactaac attttttaac agattggntt ctacatgttt aaagtatcca gcgttggatt 180
ttacctcttg ctagttccat ttgtccctgg tgctgctttt aaaggtatag ggccctgtga 240
agtgtccagt aacgtcgag 259

<210> 595
<211> 317
<212> DNA
<213> Mus musculus

<400> 595
gaattcggcc aaagaggcct acctttgacc tctgaaaaaa cctatatagt ttctcctaca 60
gacaccttgc cagtaacctt acaggtctta taggagagca gatccaagtt gccaggctga 120
tctgcaagca caaacatttg tcaagggaaa gcacaggtcg ttactttcag tacaaaatgg 180
ttctttgcta tggatggatt ctcttcttct tgccccatgt cctgttccca aggaccgact 240
tcctgcagca ctgtggtgga ctcttctatg aggagacaac atctgggcct tattcaatag 300
cctgtggcgg ggtcgag 317

<210> 596
<211> 271
<212> DNA
<213> Mus musculus

<400> 596
gaattcggcc aaagaggcct acttggattc ctttagttag cttagctctg tctcttgttt 60
cataaaacac actgggttag aatagaggct cctgcattac atggtttgtg tcactgtttt 120
ttgttgggtt ttctttttgg tttttcgaga cagggtttct ctgtatagcc ctggctgtcc 180
tagaactcac tctgtagacc aggctggcct cgaactcaga aatctgcccg cttctgcctc 240
ccaagtgctg ggattaaagg caagagtcga g 271

<210> 597
<211> 338
<212> DNA
<213> Mus musculus

<400> 597
gaattcggcc aaagaggcct agcatgttca gtatcaaccc cctggagaac ctgaagctgt 60
acatcagcag ccggccgccc ttggtggttt ttatgatcag tgtcagcgcc atggccatcg 120
ccttcctcac cctgggctac ttcttcaaga tcaaggagat taagtcccca gaaatggctg 180
aggattggaa tacttttctg ctccggttta atgatttgga cttgtgtgta tcagaaaacg 240
agacactgaa gcatctctcc aacgatacca ccacaccaga gagcaccatg accgtcgggc 300
aggccagatc gtctacccag ccgccccagt ccgtcgag 338

<210> 598
<211> 304

<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (161)

<400> 598
gaattcggcc aaagaggcta caactttctg ctcaacacta cagactacag aatcctgctc 60
aaggatgagg accatgaccg catgtatgtg ggcagcaagg actacgtgct gtccctggac 120
ctgcatgaca tcaaccgaga gccccttata tcattgggca ncctccccgc agcgcattga 180
gagtgcatac tgtcaggcaa ggatggcaat ggagagtgtg gtaacttcgt ccggctcatc 240
cagccttgga accgaacaca cctgtatgtg tgtgggaccg gtgcctacaa ccccacgcgt 300
cgag 304

<210> 599
<211> 169
<212> DNA
<213> Mus musculus

<400> 599
gaattcggcc aaagaggcct aggagaaaaa actaaaggag tacatgcgca tgatggggct 60
taacagctgg ctacactgga gcgcttggtt cctcatgttc ttcctattct tcctcatcgt 120
ggtctccttc atgacgctcc tgttctgtgt caaagtgaag acggtcgag 169

<210> 600
<211> 326
<212> DNA
<213> Mus musculus

<400> 600
gaattcggcc aaagaggcct actgtatttt taataacaac aacattagta gcccttctga 60
aaaaagaaaa cagagaagcg tcaatagtaa aagaagagac ccaagggatc acagacactt 120
acaagctgct attctcaatt ataaaaatgc cagcagttct ggccttttgc cttctgattc 180
taacgtcaaa gattggcttc tcagcagctg atgctgtgac aggcctgaag ctggtggaag 240
aaggggtgcc taaagagcac ctggccttac tagctgtccc aatggtccct ctgcagataa 300
tcctgccact cctcgtgcaa gtcgag 326

<210> 601
<211> 355
<212> DNA
<213> Mus musculus

<400> 601
gaattcggcc aaagaggcct actgtgaaaa gatgtcgctg tcttccaaag tgtccctccc 60
ccctattcct acagtaagca atatcaaatc tctctccttc cccaaacttg actctgatga 120
cagcaatcag aagacagtca agcttgcgag cactttccat agcacatcct gcctccgaag 180
tggcgcatcc cggagtctcc taaagccttc cacccaaagc agtgccagtg agctcaatgg 240
ggaccacact cttgggcttt cagctttgaa cttgaacagt ggcacagagg tgccaacact 300
gacatcctcc cagatgcctt ccctgtctag cgtgtctgtg tgtacagaag tcgag 355

<210> 602
<211> 371
<212> DNA
<213> Mus musculus

<400> 602
gaattcggcc aaagaggcct aagtaaagaa actgttagaa agcagatacc atcaaatagg 60
ttctgggaag tgcgaaatca aagttgcgca acccaaagag gtgtacaggc agcagcagca 120
acaacagaaa ggaggcagag ggctgcagc cggcggaaga ggaggtgcta gggggcgtgg 180

aagaggtcag ggccaaaact ggaaccaagg atttaataac tattatgatc aaggatatgg 240
aaattataat agtgcctatg gtggtgatca gaactatagt ggctatggcg gctatgatta 300
tactgggtat aactatggga actatggata tggacaggga tatgcagact acagcggcca 360
gcagagtcga g 371

<210> 603
<211> 529
<212> DNA
<213> Mus musculus

<400> 603
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tgctgtagca ttctttttaa aaatgtgcca taaacagtct atagtaaaat tgagagacaa 120
aaatagaagc ctgtctttac cctaaaatag aataaacttc ttaagaaggg caggaaggct 180
ttaccacggt ttggtagagg aagaaaaact tgttttcata aatatttgct ttgtgaagac 240
acggtgaaga taattgttca gggccaggat gtagcctaat agagagtgcg tgcatggcat 300
atttaaggcc ctcagttatc cctagcctga caaaaaggtt ttcttcctaa tctctaaagt 360
caagttgaaa gcttttatta attctatgtg taatagagtt ttaaaataag ttatattcca 420
gtttttcag cagtgaactc ctaagtcaaa cctatcaaat ccttgtaatg aacctgtaac 480
cattcgtctt tttataatga gattttctta aatttggcaa gaggtcgag 529

<210> 604
<211> 263
<212> DNA
<213> Mus musculus

<400> 604
gaattcggcc aaagaggcct aacaagataa gtaacttaag tgtgaccagt cactaggcaa 60
tgaatctaag tcttctaact aacttatata tctttctgcc ttggtgctgg gagcggaact 120
tggatcttct tcaagagcag gacttgctct cagctgctaa gtcatctcca gcccccattt 180
gtttgtttgg agagcaggtc tcactctgtg gtccaggctg gtttggaact cactttgtag 240
cacacgttgt cctcacagtc gag 263

<210> 605
<211> 241
<212> DNA
<213> Mus musculus

<400> 605
gaattcggcc aaagaggcct agtctggcat ggtacttgga gtgggtgctg gcgtgttcct 60
cctcgctctg atctgggtgc tggtgctgct gctgtgtgtg ctgttatcca gagcctctgg 120
gatagctagg ttctccatcg tctttgtctt cctcggagct ctgatcatta ctacagttct 180
attgcttttc cctcgagcca gtgaattccc agccccagaa ggagaaataa agcttgtcga 240
g 241

<210> 606
<211> 279
<212> DNA
<213> Mus musculus

<400> 606
gaattcggcc aaagaggcct agtgctattg aaacattggt aacagcaatt tctttaatta 60
aacaatccaa agtctctgca gatgatcgtt gcaaagttct tattagctct ctgcaggatt 120
gccttcatgg aatcgagtcc aagtcctatg ggtctggatc cagacgtgaa cgatcaagag 180
aacgggacca tagtagatca cgggaaaaga gtcgtcgcca taaatctcgg agtagagatc 240
gccacgatga ctattacaga gagagaagca gaggtcgag 279

<210> 607
<211> 276
<212> DNA

<213> Mus musculus

<400> 607
gaattcggcc aaagaggcct agtgaaatct ttagtctaca tgttggcagc caccttgctt 60
ggcctgggtt tgcacccaat ttctgggcat tttatagccg aacattacat gttcttgaag 120
ggacacgaaa cctactccta ttatgggcct ctgaacttgc tcaccttcaa tgtgggctat 180
cataacgagc accatgactt ccccaacgtt cctgggaaaa acctgcccat ggtgaggaag 240
atcgcaagtg agtactacga tgacctccca gtcgag 276

<210> 608
<211> 332
<212> DNA
<213> Mus musculus

<400> 608
gaattcggcc aaagaggcct aacatttact taaaggagaa aagaaagggg gtcgcagaaa 60
tggctggggc aattatagaa aacatgagta ccaagaagct ctgcattgtt ggagggattc 120
ttctggtttt ccaaatcgtt gcctttctgg tgggaggctt gatcgctcca gcacccacaa 180
cagcagtacc ctacacggca ataaaatgtg tggatgtccg taagaaccac cataaaacaa 240
gatggctggc gccttgggga cctaacaagt gtgacaagat ccgtgacatc gaggaagcaa 300
ttccaaggga aattgaagca aatgacgtcg ag 332

<210> 609
<211> 308
<212> DNA
<213> Mus musculus

<400> 609
gaattcggcc aaagaggcct acctttcttt cctcccttcc tcctcccatg tccctctctc 60
ctccctccca cctctcaccc ttctccatcc ctcctccctc ttttcttttg tactttccag 120
ctggagcagc agcagcagct gggcctgaat caatgattga cttccccacg acctccccct 180
ctcttttgcc aatgatatct ctttgccctt ccagtcatct tttaatttta tcgtgtatgg 240
ttttgcttct ccttcctcct cctcctctct tccctctttc tccccctct cccccaccga 300
cagtcgag 308

<210> 610
<211> 310
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (122)

<220>
<221> unsure
<222> (125)..(127)

<220>
<221> unsure
<222> (259)

<400> 610
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cccaatgaaa tacatatata tatatatgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtatg 120
tnccnnncct aagttgcatt ctgtcacaat aacaaagaac atggatttcc aacataatga 180
tgcagataca aaaaaaggaa aggaagagag gggggaggga gggagtgaga aaaggaggga 240
gggaggaagg gagggaggna gggagggagg gagggaggga gggagggagg gaggaaggga 300
ggaagtcgag 310

<210> 611
<211> 326
<212> DNA
<213> Mus musculus

<400> 611
gaattcggcc aaagaggcct aaggagatga gagagggatt gtgagtagtg gagtaaacca 60
tttggaatct ggtgaaatgg atgacccagg tgtgcagcag cagagtcatc gcagggcatg 120
cagtagcaca gctgtggtgg catgtgcccc tgtgaacatt aacataacag ggctatacat 180
ctgccagcag ctgaggctag acagccaact tggactttat gggccattcc tctacaggct 240
caccactcat cccatggcca aggcagcttt cccttctgtg ttttctgtgt cctcagcctc 300
cacctttctg ccacccacga gtcgag 326

<210> 612
<211> 278
<212> DNA
<213> Mus musculus

<400> 612
gaattcggcc aaagaggcct aagagattca ggacctgcag agtcgccaga agcatgaaat 60
tgaatctttg tatactaaac tgggcaaggt tccccctgct gtcattattc cccagctgc 120
tcctctgtcg gggagaagaa ggagacccac taaaagcaaa ggcagcaagt ctagtcgcag 180
cagctcattg ggcaataaaa gcccacagct ttcaggcaac ctgtctggtc agagtggaac 240
ttcagtctta cacccccaac agaccctcca cagtcgag 278

<210> 613
<211> 346
<212> DNA
<213> Homo sapiens

<400> 613
ggcaagaact attcttatgc agtcaagttt accacaggct cagctggctt caatatggaa 60
tctttctgac attgatcaag atggaaaact tacagcagag gaatttatcc tggcaatgca 120
cctcattgat gtagctatgt ctggccaacc actgccacct gtcctgcctc cagaatacat 180
tccaccttct tttagaagag ttcgatctgg cagtggtata tctgtcataa gctcaacatc 240
tgtagatcag aggctaccag aggaaccagt tttagaagat gaacaacaac aattagaaaa 300
gaaattacct gtaacgtttg aagataagaa gcgggaggca ctcgag 346

<210> 614
<211> 344
<212> DNA
<213> Homo sapiens

<400> 614
gaattcggcc ttcatggcct agaatggtct gaactaggcc ccatatttta aaagaaatac 60
acttattacc tttaaaatca tatatattca cttccaactc aaatggcaaa cgaagcacct 120
cccactcgaa gcccagctga aatattttta aatgtgtgtt aaataaaaaa tttctggccg 180
ggcgcggtgg ctctttaaag gagttttgct gggaaggggt gcagagaaat aggatagtag 240
gtggaaggga aagtgagatt agcagatttt ttgtttttaa aagataggaa atgtaacatg 300
tataggctga tgagagtagt ggttaaagag gggaactgct cgag 344

<210> 615
<211> 569
<212> DNA
<213> Homo sapiens

<400> 615
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ggctctggga aggcttctgc ggtgtcgcgg taagtgatga gctgggaggg ctctgggcca 120
ggcccttgtc gggtcccagg ctgctcccac tgcagcttgg ttccacatct ttcttcagcc 180

tcttgcggtc aatgggctct cgggggacag atggcctttc tcgggtgtgc ttagaggaga 240
aactgtacga atgaagtgag ccgataaatt tgcacgcccc agatcctggg ggcgtaaagt 300
catccataga aatgccactc ttatctgtca cgcccccttc gatggaggaa gtggcgctct 360
catcgccagc atctgtggca gacgcttctg cttttccctg actgcctgcc accatggtgg 420
ccagtccatc tcctggagtc cgttccagag cttgctgggc ctgctcctgg ctggcggcct 480
cctgggccgc cctgggtgtg gcttcacctt gcagagcagc ttgcttcaac ctgcgggact 540
ctggcttggc catcgggttt ccactcgag 569

<210> 616
<211> 355
<212> DNA
<213> Homo sapiens

<400> 616
gaattcggcc ttcatggcct agtttctgcg ccccctgcct accccacttc cccctccagt 60
tctcagcttc tctttgaagt ccgagaagtg aggatgcgcc tgtgggtcgc agcgggggag 120
gaaaggggag aagaggggga atgcctccac ctccaaactg ctacattaaa gaaagtttgc 180
aagttccctg aaggacagat acggaagatt ataaaaccag cttctagttt gtctccatgt 240
ggaagttcag ccttctggcc tctcccgcac ctcttcagta tctatcctcc taccgagcac 300
ccatctgatg gatctctccc cactgcaacc caccctcctc tccagggagc tcgag 355

<210> 617
<211> 514
<212> DNA
<213> Homo sapiens

<400> 617
gaattcggcc ttcatggcct agcctcttgc agcttacccg ctaaaatgtt ccgggcccag 60
agcaaagctt ttatgccttt gaagtgaagg atgcaaaagg aagaactgtt tctctggaaa 120
agtataaagg caaagtttca ctagttgtaa acgtggccag tgactgccaa ctcacagaca 180
gaaattactt agggctgaag gaactgcaca aagagtttgg accatcccac ttcagcgtgt 240
tggcttttcc ctgcaatcag tttggagaat cggagccccg cccaagcaag gaagtagaat 300
cttttgcaag aaaaaactac ggagtaactt tccccatctt ccacaagatt aagattctag 360
gatctgaagg agaacctgca tttagatttc ttgttgattc ttcaaagaag gaaccaaggt 420
ggaatttttg gaagtatctt gtcaaccctg agggtcaagt tgtgaagttc tggaggccag 480
aggagcccat tgaagtcatc aggcctggct cgag 514

<210> 618
<211> 433
<212> DNA
<213> Homo sapiens

<400> 618
gaattcggcc ttcatggcct agagatcgtc tcatttaggt taaaatgggg agactgaggc 60
ttttaatggg cagcgtttgc ctaagattac cctgatttaa cggtagtgtt aggtttagtc 120
tctcaacatt tgctctgggc aaagaaagcc cttacctgga caaccatcct ttctggactc 180
caagttaagc ttcttattta ttttttgggg cagtcagatg agggaatggg tagattttgg 240
tgagtctaga ccacagtccg atgaccaacc tttttcaagt gggatcccac aaatctgcgc 300
gaccgccgat gcgattggcc tcaccatccg catcgcccag caggggggcgc ccagggggcg 360
catctcagtg cgttagcaaa gggcggaaac tgtgcgctct ctggctagtt ctgaagttga 420
aggctatctc gag 433

<210> 619
<211> 309
<212> DNA
<213> Homo sapiens

<400> 619
gaattcggcc ttcatggcct agttcccgct tgctctctgt cgctgtcacc gccctgtttc 60
tgtagccgta tggtacgcct gtgagaccgg ctgccggctg acgtctcctt gcgatggagc 120

atatccggac gaccaaggtc gaacaagtaa aattacttga ccgattcagt accagcaaca 180
agtcattaac aggaacactg tatcttacgg ctacacatct attatttatc gactctcatc 240
aaaaagaaac ctggatatta caccaccata ttgcctcagt agagaaactt gctttgacta 300
cttctcgag 309

<210> 620
<211> 320
<212> DNA
<213> Homo sapiens

<400> 620
gaattcggcc ttcatggcct actttcctta aagcccttca cccactgaag tcatccttta 60
tgccagggtg gtaggaagta tgttaaccgt tgttacagta ctcatcacac tatatagctg 120
ctatttgttt ttctttctgc ctgccagaca aggagctccc taagaactga acctcgtgca 180
gaagacaaag cttatctggg agtcagcttt agcacagtac tgattgaaga ctacccctag 240
tacatatgct tgtactctct ctcccttccc tgcctccagc cccaaatgac gcttcaacac 300
ctaatacccg agatctcgag 320

<210> 621
<211> 696
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (491)

<220>
<221> unsure
<222> (507)

<400> 621
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taagataact ggggaagttt tgggtaacta gaggatgaca tactaaaata gcagcatcac 120
gaagggtgca atgaagtaag atcaagctaa cacgtcgaac tattctgtca acacctctgt 180
gtcgtccatg tctataggtt gacaatggta aatggatgtt ccagcccaga tactctctga 240
aatgacctgc agctttacag aagtaattct taattcatgc actcatcttt cccccagacc 300
ccaaaggtgg ccattccaaa gtagtgctgt ccagtgagac tagcatgtgc tacaggccct 360
gagtggagac ccagcttcgc ctcttttgct gagcaagttt ggcatggtgc taacttctgc 420
atctgtcatg cagccacact aacaatttcc accttgccta cctgaagatg ttgatgagaa 480
tatcgaaaat ngtgtgtgtg tgtgtcntgt gtgtgtgtgt gtgtgtgtgt gcatgttaca 540
tagtcaaaga tagtcaacta agaacactgg cttgcagctc atttcctact atggcattac 600
attggagaag atgtcataga tttgtgtagt gatgacgagg gtccctggtg gtggcgggaa 660
cctgggtgag tcctccaagt actggccgta ctcgag 696

<210> 622
<211> 599
<212> DNA
<213> Homo sapiens

<400> 622
gaattcggcc ttcatggcct aggttagggg aagatacatt agtagactga tttcaaccta 60
acgaaaaaac ttaatttaat gcaatgcctg ggtatgtatc tgtggtatat aaagagtagt 120
taagtcattc cctgtaacag gtaaatgaaa caagaagaca acaagacgtt gcaaaaactt 180
gcaagagatg tgtcttacag gaaactagta gattagagaa tatgttttta aatctattat 240
acctaaatct aaattaggcc atgaaggccg aattcggcct tcatggccta ctgcctcggc 300
ctcccaaagt gctgcaatta caggcacgag tcactgcgtc tggccgagag tatgatttta 360
gaaccagaaa aggacttaat atgtaaattc tgaaagttct ggagatggat ggtggcgatg 420
gttgcacaac aatgtgagag cactccatgc caccacagtg tgcactgaaa atggtaagat 480
ttacactctg tgcattttac cccaacaaaa aaagagaaaa atccatccca tcccgtcatt 540

ctcctgggag aggccttcac caggccctgt gtggggcgca ggtctgcgct ggcctcgag 599

<210> 623
<211> 252
<212> DNA
<213> Homo sapiens

<400> 623
gaattcggcc ttcatggcct atagaagctt aaacataagt ggttaagtct tgttgtctag 60
tctcattcac ctgcctcaac atgctttctt tcattctatt tgcatacaaa atgttcttat 120
ttcagttttg tagacaggat atgagttagc atactcgtgt ttgttcagct gtccatcctg 180
catcgttact acaatgcctt tttctgccat ttaatggtgt ttgtatcaat gttcccatat 240
ctgcacctcg ag 252

<210> 624
<211> 281
<212> DNA
<213> Homo sapiens

<400> 624
gaattcggcc ttcatggcct acagcacact gccttgcttc ccattactca caagaatatg 60
tttatttccc attaagggag acctctgcaa cttacagcta acctagtcta tctgaattct 120
taccttttt tgcttcttct ctcctctgcc tgttctcccg cttgtcccct tcagtgggtg 180
gcactttcag cctgacacct ggggtcctct tagattctgc aagtccaagc agatctccct 240
ctatctacta tgtggagaga atgttatctg aatcactcga g 281

<210> 625
<211> 362
<212> DNA
<213> Homo sapiens

<400> 625
gaattcggcc ttcatggcct accggaggac cccattctgc ccctggtagg cccccctggca 60
agttcgccta cgagtctcta aacggggtct ttctgactcc gaaactaaca gatcttgact 120
ccagaaaagc gtcctgcctg tcatttatga tatttgtgaa agacctagga acaactgaag 180
ctaacacctg agatactgaa ggcctggaag agttaggtac ggctgatgac actgttgaaa 240
agtcataaac gcacccaagt tgagcaagaa ctgtgttggc ccgtgtgtga gaaaaaatag 300
ccacgtccag actgggagaa tttactactt ccaaagacaa gttaatagaa gcggcactcg 360
ag 362

<210> 626
<211> 329
<212> DNA
<213> Homo sapiens

<400> 626
gaattcggcc ttcatggcct aatcgattag ccctcgccgg actcggactg caggaagtga 60
ttgatcggct gtttggttta ttgattcatt aactacggtg cctccctgac cttctgctcc 120
tcgccagcgc acaagctcac aatccacacc ctcctaagag aacctgctct cgccatccgc 180
aggtctccct ggcccaatag tggggatata cctgagttga gctagaggat tttatccctg 240
ttgggatggg ggacgtctcg ggaagtgtgg tttctaaact aaaattgaca ccctaacatc 300
acaattaaca gaactagaga gagctcgag 329

<210> 627
<211> 498
<212> DNA
<213> Homo sapiens

<400> 627
gaattcggcc aaagaggcct aggaggggca ggagaacctg caggagatcc tcagcaagca 60

gctgcttctg tgtcagttcc tcatggcgct gtccattgtc cggacaggag gccacttcat 120
ctgtaaaacc tttgacctgt tcacaccgtt tagtgtgggg cttgtctacc tgctgtactg 180
ctgctttgaa cgagtttgtc tcttcaagcc tattaccagc cgtcctgcca actcagagag 240
gtatgtggtg tgcaagggcc tgaaggtggg catagatgat gttcgggatt acctcttcgc 300
agtgaatatt aaactcaatc agctgcggaa cacggattcc gacgtcaact tggtggtccc 360
cctggaggtg atcaagggag accatgaatt tactgactac atgatacggt ccaatgagag 420
ccactgtagt ctgcagatca aagctctggc gaaaatccat gcctttgttc aagacacgac 480
taggcctctt tggccgaa 498

<210> 628
<211> 541
<212> DNA
<213> Homo sapiens

<400> 628
gaattcggcc aaagaggcct aaatatgtga caaccactgt gctgagctat gtatgcttcc 60
cttattcaat ctatgtaaaa attttgggga agtagctgag actttttat ttccctgaca 120
gagctgggat tcagtggttg gtttcttgaa aaagctaggt tctttgccta acagcagctt 180
agctcctcaa tttagggaat gaaagcagga atgaaaatgg ccagagtttt cgctcctcag 240
cttgtggagg agcttgagta catgaacctc aactaagccc ctaacatcag gaaggaaaat 300
ggaaaggaga atttttagac ctttaaagca gagaaattac tggtgaatca tgtagcacaa 360
caggtacctt tagctttttc actgtgatgc tgtatgactt tctaaggtag tcagcatagt 420
ttgtagtaaa tgattcttat tactggaagt gtaagtggag tgttactcac tagttattta 480
aaaaacattt ataaggctat taaaacatca tctggaatta aagcagcata atttacccca 540
t 541

<210> 629
<211> 630
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (186)

<400> 629
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cagagtgggg acttgtggtg ccttttctgg gctgcccaca gaccaactgg catgcaccac 120
ctcccctgta aggcccataa aagcctcagg ctcaaccaga gcagggcaga ggaaggagag 180
acatcnggat gaccagctgt agagaggagc taccctctct agggcctcct ctctgctgag 240
agctgcaaac actggaatga cctgcctaca gagagaagcc acctgctcca gggcctcctc 300
tctggctgag agcaacagac atcaggacga ccaaaggcag agaggagcca cccactgcag 360
gcctcctctc tgctgagagc tgcagagaca atgggacaac ctggctgacg agaggagcca 420
cccactctag ggcctcctct ctgccgagag tcgaacactc aacaagatga cctgcctaca 480
gagaggaact gcccactgca ggtctcctct gagctgctct gacactcagt aaagctcctc 540
ttcatcttgt acactctaca cttgtctgca tacctcaatc ttcctggacg caggacaaga 600
actcaggcaa aggtgccaca ggccacagag 630

<210> 630
<211> 377
<212> DNA
<213> Homo sapiens

<400> 630
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ttcagttttt ttataattga aaatggcatc attcttggac caggcagtat tgtctgggtg 120
ctaactccac atctcctcag acctccaaaa tagtttctat aggactaaat ttacctctta 180
caggtgagtg gagtccttct aggagacagg agttcaaaat cttgcccctt ttgctatttt 240
gaaaaacaac agcacactgt tgcccatcat aataaagagt atttgttagc taatagatgg 300
ttgtactgat ggcttgtttt tcattttttt tgtgcttttt ggtccatcta ttaataaaaa 360

tgaaccccgt aactgag 377

<210> 631
<211> 263
<212> DNA
<213> Homo sapiens

<400> 631
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgattctc 60
cttccttgac agttgtcatt tacgtgctga agcatattga cttgaggaaa acgccttcct 120
tggagtttgg catgatgatc atttttgctt atctgcctta tgggcttgca gaaggaatct 180
cactctcagg catcatggcc atccttttct caggcatcgt gatgtcccac tacacgcacc 240
ataacctctc cccgtcactc gag 263

<210> 632
<211> 144
<212> DNA
<213> Homo sapiens

<400> 632
gaattcgcgg ccgcgtcgac tgttattatt gttgttttgt cactaattaa aacaatgagg 60
ccccatgcac taggtcatcc tcttgctctc ctctttcttt cttacaatga gcttcttacc 120
aaaaggatga tgggacaact cgag 144

<210> 633
<211> 168
<212> DNA
<213> Homo sapiens

<400> 633
gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctgcc accgtgccca 60
gccatgattt gcaaatattt tctcttagtc tgtggcttat cttttcattt tcttaacagt 120
gtcttttgca gagtggaggt ttttaatttt aatgaatcca acctcgag 168

<210> 634
<211> 204
<212> DNA
<213> Homo sapiens

<400> 634
gaattcgcgg ccgcgtcgac gaaacagact cttccctagg ccctctggag taccatgctt 60
cctggctttc cttccaactc cctgaccacc ttctctcttc tctttgtgac ctcccattcc 120
tatgctcatc ccttctatat ttgtgatgct caagattcag tccaaggcct ccgttttcct 180
tactttaaaa acggaggact cgag 204

<210> 635
<211> 556
<212> DNA
<213> Homo sapiens

<400> 635
gaattcgcgg ccgcgtcgac tagacctgcc tccagtatgg tggagggttt taattttttt 60
aatcatttgt ttgttttgtt ttgtttgtgt gcatgtcttt agctctacgc tcatcgtata 120
cattccctga cccagcccta gaatcagaca tttctccaag ggaccctagc ttattttatt 180
ggagaatggc attagaaacc aatatctgaa ttctgggtat tttattacta ctgggtcgcc 240
tttcctcaag gcccactcag ctgacagagc aacaacatat atgtatctac gctaactgat 300
gtgcacacaa gtgtccataa atacctctag gtatatccat ctctattaaa gtaaatatga 360
gttcatattg atgtttccaa ctgtcaacct gtactacatg gatcattctg gcctccctta 420
caccttgcac accggtactc tccaactccg acagtgaaaa acctagctga tgccataagc 480
tatctaattt atttaactgc acaattccag tatatatgta aagtggtttc agaattgcta 540

gcccgtaccc ctcgag 556

<210> 636
<211> 127
<212> DNA
<213> Homo sapiens

<400> 636
gaattcgcgg ccgcgtcgac actggaagga aatgagcatt tgtctaagga tcctccctgt 60
cctctttcag gcccttccct gcatgatctt catgcccaca acttgggcag gccagcaaaa 120
cctcgag 127

<210> 637
<211> 255
<212> DNA
<213> Homo sapiens

<400> 637
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ttaagcactt ctgttgttgg taatttgtat tttcactttt gtggattacc cacttatact 120
ctttattcat ttttttgtgg ggggatgccc tttgttattg ctttgaggag ctttatgcat 180
acaaatccat tatctaacaa atgtgtttca aatattttat gccagtcctc ctcttcctcc 240
tcctcccccc tcgag 255

<210> 638
<211> 290
<212> DNA
<213> Homo sapiens

<400> 638
gaattcgcgg ccgcgtcgat cgttggcagt gtgggtggtg tttttgttat agttgagggg 60
tcgctttcat atgctctcac caagtctaac tgactctgga agaccttttc tgaccaagtg 120
acaacatcac aactttagca gccctcatgg actttctcat gtgcacaaaa ctcaaaataa 180
ttttatttat atttaccgct ttattgcttc ttcttgtctt cggcgttttt cattcttctc 240
tttcaaatag gctaggttag tttcatttct caagcgatca ttctctcgag 290

<210> 639
<211> 457
<212> DNA
<213> Homo sapiens

<400> 639
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttgacctgc ctcgaggtgt 60
ttgctgtgaa gattttttaa aacatgcggt aaagatagaa agcaatcctc cttggcacgt 120
gaggagattc caaacttctc aatatagctt agttctccct gactgtgagg atgttgcaga 180
aaactggatt ttttcaggaa gaaattagat ccagatttag cacttacgca tgtacacaaa 240
tatataaaaa cagtcggacc agggaatgtt tctggcgatc tttgtcatct caaagtatct 300
gacgtttatt cagtggcggt ttctatttag tggtatttat tattgcacat tgaagctcat 360
ggcaactgtt ttttaagact tgctctgcat tgtattccaa aacagttttc tctccgtctt 420
ttattttta atgaactcat gtgtcatttc ccacccc 457

<210> 640
<211> 183
<212> DNA
<213> Homo sapiens

<400> 640
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagtgac 60
cggccagttt taccgtgttt tatgtttcct tttttctata gtgtttatcc cttagcgtgc 120
tatgtaattt atggatttac tatgcttatt gcttgtgatt tgtctcctcc ccattcccctc 180

gag 183

<210> 641
<211> 322
<212> DNA
<213> Homo sapiens

<400> 641
gaattcgcgg ccgcgtcgac tgcacattca aaggataact attttatttt tggtcaagat 60
acatttttaa cttgttgcta ggataaagtg ataaaagaca tttagcccta attaattatc 120
tgccagtaaa atgaaacatt gttctgcctt ttcatttctg tatttaattt actactttca 180
gtactatgtt ggcctgaaga catctaagct ctctcaagat acggaggtac ggttccatga 240
catttcttcc ctatctgtca gttttgaaac ttcaaatgcg tgtgagatac atgtgtcctt 300
aaaagagtct ccggaactcg ag 322

<210> 642
<211> 148
<212> DNA
<213> Homo sapiens

<400> 642
gaattcgcgg ccgcgtcgac ccgtcattga attctagacc tgcctcgagt gtggagttga 60
tactgatcag agctttacta gaatttttct cttctttttt aaaactaaaa cgtggaaaac 120
taagaagatg ttaagggtgg ttctcgag 148

<210> 643
<211> 326
<212> DNA
<213> Homo sapiens

<400> 643
gaattcgcgg ccgcgtcgac acctgtcatg tgtgcgcacg tgcatggtgg tcgccgagga 60
gcggcccagg attgcgctga cccagtcctt ctccaagctc ttcaaggacc tggcctgcc 120
ggcccgcgcc gtaagcacca cgttcgggtg cagggtcaac gtggccatct gcctccaggg 180
cacagctggc ccggacccca caaccgtcta cgtggacatg cgggcactgc gccatgacag 240
ggttcgtttg gtagaacggg gttctccgca cagcctgcca ttgatggagt ctggaaagat 300
cctccccggc gtgaaggtca tcatcg 326

<210> 644
<211> 130
<212> DNA
<213> Homo sapiens

<400> 644
gaattcgcgg ccgcgtcgac cccctctact acttttggaa taattttctt tcattttttt 60
tcctagctgt cccctggcgt cctcaccaac ttttcttaga gacatggtct cactctgtca 120
ctggctcgag 130

<210> 645
<211> 559
<212> DNA
<213> Homo sapiens

<400> 645
gaattcgcgg ccgcgtcgac ccatgaacag gatccgaaag tttttccgag gaagtgggcg 60
agtcttggca tttatctttg tagcttctgt catctggctc ctctttgaca tggcagctct 120
ccgcctctca ttcagtgaga tcaacactcg ggtcatcaag gaagacattg tgaggaggga 180
gcggatagga ttcagagttc agccagacca aggaaaaatt ttttacagca gcataaaaga 240
gatgaaacct cccctaaggg gacatgggaa aggggcatgg ggcaaagaga atgttagaaa 300
aactgaggag agtgtgctca aggttgaggt ggacttggac caaacccaga gggaaagaaa 360

aatgcagaat gccctgggaa ggggcaaggt tgtgccgttg tggcatcctg cacatctgca 420
gaccctccct gtgactccta acaagcagaa gacagacggg agaggcacca aacctgaagc 480
ctcctctcac caggggacac caaagcaaac gacagctcag gggctccaa agacctcatt 540
catagcagca gcactcgag 559

<210> 646
<211> 215
<212> DNA
<213> Homo sapiens

<400> 646
gaattcgcgg ccgcgtcgac agtatgggaa atgttggatt tttaaaatgt tacacaaatt 60
tctttatgat aggacttctc agagctttta gcattctaat gcagagtgga aatgtgaatg 120
gcaggattca gtataatcag cacgtcccaa ctctatctga acacagaact cttgttctgc 180
atatcatcga tttgcacacc ctggaacaac tcgag 215

<210> 647
<211> 123
<212> DNA
<213> Homo sapiens

<400> 647
gaattcgcgg ccgcgtcgac ctcctcgggc tatccccaaa ctgccacttt taactcttga 60
agtaaataaa taatctttgc tggcaggact atgctgaatc tccttaggca ctatctactc 120
gag 123

<210> 648
<211> 149
<212> DNA
<213> Homo sapiens

<400> 648
gaattcgcgg ccgcgtcgac gggggaagta gaaagagagg cattccaggc atgactggag 60
taaagaaaag gaacatgttt tgtttctttg agactgtaac cagcctttgt gctgcagcta 120
tatttgtgga aaagatcggg ggcctcgag 149

<210> 649
<211> 503
<212> DNA
<213> Homo sapiens

<400> 649
gaattcgcgg ccgcgtcgac tgccgtggcc tgcttcctga cccgcgggga cctctgggtc 60
agctgggaga gcggggtccg ggtatttgat gagctgctcc tggatgcaga tttcagcgtg 120
aacgcaggca gctggatgtg gctgtcctgc agtgctttct tccagcagtt cttccactgc 180
tactgccctg tgggctttgg ccgtcgcacg gaccccagtg gggactacat caggcgatac 240
ctgcccaaat tgaaagcgtt cccctctcga tacatctatg agccctggaa tgccccagag 300
tcaattcaga aggcagccaa gtgcatcatt ggtgtggact acccacggcc catcgtcaac 360
catgccgaga ccagccggct taacattgaa cgaatgaagc agatttacca gcagctttcg 420
cgctaccggg gactctgtct actggcatct gtcccttcct gtgtggaaga cctcagtcac 480
cctgtggcag agcccagctc gag 503

<210> 650
<211> 258
<212> DNA
<213> Homo sapiens

<400> 650
gaattcgcgg ccgcgtcgac gagagtccgg agtgcctacc taaattacta agacaataaa 60
ggacatacaa aagaagataa tcaaatgtta ctttgggtac ttgaacactt gctaagagca 120

tgcatcctgc agtcagtaac attaccatct atactcagag ggcaaacgct aatttcaaat 180
ccagagcaat gtcaaggatt tatcactgca acccaaagta tctttgctat caaagacagt 240
gggggcataa aactcgag 258

<210> 651
<211> 175
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (128)

<400> 651
gaattcgcgg ccgcgtcgag tcgattgaat tctagacctg cctcgagtga gcgaatcagt 60
gaaaacgatg cttcatcatg ctcttctcca gtgtgcctgt tttccacaga tacagctttt 120
attctgtnac ttcttcctca ctccctctca taccatcccc acccacaacc tcgag 175

<210> 652
<211> 197
<212> DNA
<213> Homo sapiens

<400> 652
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgt ctcaaaaaaa 60
aaaaaaaaaa aaggagagaa aagaaaatgt tgtatatttt actttgcata accataattt 120
atatgtcttt tgttctttcg tggtgctcca tgaaaaaatt gactgcttta gctcacaact 180
caactgccac actcgag 197

<210> 653
<211> 206
<212> DNA
<213> Homo sapiens

<400> 653
gaattcgcgg ccgcgtcgac aggtcgtccc atttccttga gtggaccctt ctttctccaa 60
atcacctaag aggaaaacta agttatttct gactttttcc tttactttat ttccccaaag 120
ggaaaccagt catgaaattt aagacactct gtctacttag cattcttcct ccttttatta 180
tttccaccat gccccaatct ctcgag 206

<210> 654
<211> 213
<212> DNA
<213> Homo sapiens

<400> 654
gaattcgcgg ccgcgtcgac tttttctttt tttttttttt ttatcctaga cctcacccctt 60
ataatcattg taggattacc actgtgaggg taaaaccgtg cattgagttg acattattta 120
atgttaaaat tgattttttt aaatgatgtg gagcttttgg gtctatttgt ttattcgatg 180
ttgctacaag tttgttactg tgagttactc gag 213

<210> 655
<211> 207
<212> DNA
<213> Homo sapiens

<400> 655
gaattcgcgg ccgcgtcgat aaccgtcgat tgaattctag acctgcctcg agtttttgga 60
cttgagaaag acaattgtct gactctgcct tgtctagaga tatttgccat gggaattcaa 120
tatttgaagt ctgtcatatc tttattgccc atgatgattg tatttaataa cttcgaagaa 180

aataaatgta tcccacaacc cctcgag 207

<210> 656
<211> 337
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (26)

<220>
<221> unsure
<222> (32)

<400> 656
gaattcgcgg ccggctcgac cgcggncgcg tngacctgcc accccagggt gaatggcgaa 60
gccctccacc aacatggcag cccacagagg ctactgagga ggttggaggg ggcctcaggt 120
ggaaggatta gcctggccag gcacagagtc cctgaaaagg gatgagaagt gaagaaaacc 180
tgggataggg tggagtgaga gctcgccatt tctctgccaa gcaggacgca agccatcttc 240
tgcaagcagg aggtggagaa gtgaggaagg gtgaaggttt ggcctgagta gagtagtcag 300
tgtggggcca agaaaaggga ccagggacga tctcgag 337

<210> 657
<211> 199
<212> DNA
<213> Homo sapiens

<400> 657
gaattcgcgg ccgcgtcgac aaatgccaca tgtgaagatt ttcttgcaat tttgcctcgt 60
gttatccttg ctctctgtgg tatctagagc ccccagtcat gtgtcattat gggactctaa 120
cagttgctgc tcaatgacac ctgcagacac tgagttcagc tttgtccctc cgctggatca 180
gtctccactc cctctcgag 199

<210> 658
<211> 335
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (297)

<400> 658
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc actcgagtct 60
gggcaacaga gcgagactcc atctcaaaaa aaagaggtac atcagctctt gtcatttatc 120
tgctgtctct ggacttgctg accccaccca tcgctcctct gctttgcttg atcccttcag 180
gcttctcttc aagtctctct gcaaagatgc ctgcctctga acactcaagt ggctccactt 240
gtcccctcct tcccctgctg ttactgtacc tgctactgtc cccccagggg gagcttngcc 300
tctgtttgtc ttccatcccc agcaccaaac tcgag 335

<210> 659
<211> 152
<212> DNA
<213> Homo sapiens

<400> 659
gaattcgcgg ccgcgtcgac ttctctgcct cgagagtcta tagtatgcat cccattcatt 60
ttcttcttct gattattgtc atctttccct ttgccaaatg ggcagttatt gtttcaggga 120
gagaagctgc tcattggcca atcattctcg ag 152

<210> 660
<211> 296
<212> DNA
<213> Homo sapiens

<400> 660
gaattcgcgg ccgcgtcgac ttgctttgaa gtaagtctca ataaggcaat atattttagg 60
gcatctttct tcttatctct gacagtgttc ttaaaattat ttgaatatca taagagcctt 120
ggtgtctgtc ctaattcctt tctcactcac cgatgctgaa tacccagttg aatcaaactg 180
tcaacctacc aaaaacgata ttgtggctta tgggtattgc tgtctcattc ttggtatatt 240
cttgtgtaac tgcccattgg cctgaaaata ctcattgtaa gcctgaaaag ctcgag 296

<210> 661
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (41)

<400> 661
gaattcgcgg ccgcgtcgac gacctgcctc gaataagtgt ntattatacc ccaatattag 60
aaggaagaaa taaaagtaaa agataaagca caccagtgac aaaatggata tgtttcccac 120
catgaatgca tatttcgttt gtggcagttt aaatattaca ctttgcttca atgctgtctg 180
ctggttacaa atagcccagg gccctgctcc tgatcacagc tcaaaggaag gctgcctaca 240
tttatgtttg tgccctaagt attgtataag tccatgccct gagatgttac tcatcccagt 300
ttcgtgtttg ttggtaaaga gggagttgta ccttgtagag tttcatttct tctctcccat 360
acattgactc atattggtga ttatgtcaaa aactacttaa tttgtataaa ggcatcccca 420
acagctcgag 430

<210> 662
<211> 176
<212> DNA
<213> Homo sapiens

<400> 662
gaattcgcgg ccgcgtcgac gcattgtgtt taaatttaac attccttaga gaaaccccag 60
aaatctcatt tatttttggc agatatcctg tgcagcaaaa atcaagtgaa tttccctctt 120
ccccactcct caatttaatg ctgtactcaa aatggctaaa cgcaatactt ctcgag 176

<210> 663
<211> 326
<212> DNA
<213> Homo sapiens

<400> 663
gaattcgcgg ccgcgtcgac gtcgattgaa ttctagacct gcctctgttt cttctctcgt 60
gtaatcgcaa aacccatttt ggagcaggaa ttccaatcat gtctgtgatg gtggtgagaa 120
agaaggtgac acggaaatgg gagaaactcc caggcaggaa cacctttttgc tgtgatggcc 180
gcgtcatgat ggcccggcaa aagggcattt tctacctgac cctttttcctc atcctgggga 240
catgtacact cttcttcgcc tttgagtgcc gctacctggc tgttcagctg tctcctgcca 300
tccctgtatt tgctaccatg ctcgag 326

<210> 664
<211> 201
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (176)

<400> 664
gaattcgcgg ccgcgtcgac agttgggctg atggtcaggt ggctatcaga gggtaagcaa 60
aagatgtttg gtaaaagagc aaccccctgg ccccatctac caagaatgaa gaaagtaggt 120
gccatgttgt aatttcagct gacaagaagc attagcatta tcgcacactt tgtganttaa 180
gtaatgattt aattactcga g 201

<210> 665
<211> 132
<212> DNA
<213> Homo sapiens

<400> 665
gaattcgcgg ccgcgtcgac ggtggctact gtagatttga gctggcataa cacagtgtgt 60
tcactaagtt ttatgagcat aaacattaaa atgttàcata aaatatacca taatttactt 120
cactcactcg ag 132

<210> 666
<211> 469
<212> DNA
<213> Homo sapiens

<400> 666
gaattcgcgg ccgcgtcgac accctattaa aaaggaggag ggcagtattt tgggattttt 60
aaggaccttg aaattaactg atagtttgaa acatatagca gagaactgat aatcttttt 120
taggtcatga aagtaaaatg tttaagatac aatatttttg gtctttttag taaaggcatt 180
tgttttcagt aaagatactt ctttttaaa ggagagaatt taggattacc atttggtaag 240
agagtatatg gaacaagaga tattaataag agaagtagag taatggaaag atctgaaact 300
ggtattgagc tgtctcactc cgttgcccag gctagggtga agtggcatga tctcggctca 360
ctgcaacctc tgcctcctgg gctcaggctg ggactacagt cacgtgccat catgcctggc 420
taattttttg tattttttgt agagatgggg ttttgccact agactcgag 469

<210> 667
<211> 140
<212> DNA
<213> Homo sapiens

<400> 667
gaattcgcgg ccgcgtcgac ctaaccgtcg attgaattct tagccgcctc gtcctgttaa 60
atttcaggat gtcaaacttg gcctcctttt tttggttttc atttttctta gtattaccag 120
ggtgtgcaga gcggctcgag 140

<210> 668
<211> 690
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (139)

<220>
<221> unsure
<222> (287)

<220>
<221> unsure
<222> (305)

<220>
<221> unsure
<222> (310)

<400> 668
gaattcgcgg ccgcgtcgac gaggattgat tcagttagcc gtcttggcca acccaagtta 60
actgtacttc atcttagtct atgttggtgt tagaaacaac aaaaaggaaa aaaaaaagcc 120
aaacagtaga gcaacaatnc attcattcat aaaagtaatt acatgccatc taactaatca 180
catggtaaat aatttaaatg gtttagaagg gtatgaaaga aaaagtccca cccctcttct 240
tcccagcctg ttccccagat gtgaccactg ttaacatact tgtgtancct tctagatata 300
tatanttgtn tccttttaaa aaaattatac agataggatc ggagttcaca ttttgttttg 360
catcctactt tttcacttgt tgataaacca tagaactctt ttcatagcaa cacatataga 420
tttagcatag tgttttaagt ggttacatag cattgatgtg ctctaagtta tttaaccagt 480
cttctgttga tagctatttg ggttgcttct gttttttagg tattacaaat aaaaataaaa 540
aaggacatcc tgatagatat ttttctgcat agttatgcaa gtaagtccat gggatcaaca 600
tctatccatg aaatggctat gaattctaaa tttttatagg tgtttctgta ttgcttacta 660
aaaaaggtta tgccacttta cgtactcgag 690

<210> 669
<211> 403
<212> DNA
<213> Homo sapiens

<400> 669
gaattcgcgg ccgcgtcgac gagtgaggtt gcggtctgtt agtagtatag tgatgccagc 60
agctaggact gggagagata ggagaagtag gactgctgtg attaggacgg atcagacgaa 120
gaggggcgtt tggtattggg ttatggcagg gggttttata ttgataattg ttgtgatgaa 180
attgatggcc cctaagatag aggagacaga atatgagtac agcggcagcg aggaggaaga 240
tgacagccat ggagaggaag gagagccaag ctccatcatg aacgtgcctg gagagtcgac 300
tctacgccgg gagtttctcc ggctccagca ggaaaataag agcaactcag aggctttaaa 360
acagcagcag cagctgcagc agcagcagca gcacggactc gag 403

<210> 670
<211> 441
<212> DNA
<213> Homo sapiens

<400> 670
gaattcgcgg ccgcgtcgac gttggatgaa gaaatggtaa aaactagagc aaaagtctta 60
aggagcatat atgaattcct cagtgcagaa aaaagggaat ttcgttttca gttgcgaggg 120
gttgcttttg tgatggtaga agatggttgg aaacttctga agcctgagga ggtagtcata 180
aacctagaat atgaatctga ttttaaacct tatttgtaca agctaccttt agaacttggc 240
acatttcacc agttgttcaa acacttaggt actgaagata ttatttcaac taagcaatat 300
gttgaagtgt tgagccgcat atttaaaaat tctgagggca aacaattaga tcctaatgaa 360
atgcgtacag ttaagagagt agtttctggt ctgttcagga gtctacagaa tgattcagtc 420
aaggtgagga gtgatctcga g 441

<210> 671
<211> 175
<212> DNA
<213> Homo sapiens

<400> 671
gaattcgcgg ccgcgtcgac ggggagactc atagcacctt aacatgaata tgaaactttg 60
cttaaggaaa aaaaagaagg ctgggaaaag catttccatt ttgatgatga tgatgatagt 120
gatgatgatg atggtggtgg ctaacactta ccaatgcttc ctcagagctc tcgag 175

<210> 672
<211> 333
<212> DNA

<213> Homo sapiens

<400> 672
gaattcgcgg ccccgtcgac gtcgacgcgg ccgcgaattc gcggccgcgt cgacacagtg 60
gggaaaacca tggaggccca cacatggatt cttcaacact atagcaaaaa tgagacacac 120
atcatttttg ctcagtttta ttggccagag caagtcttgc agcgaaagct aacttgaaag 180
agtaaagtct gatcatcctg atacctggaa taggacctcg atattggtaa atagtcatac 240
acatttcatt gttgcatacc aacagacaca cactcacaca cgtatagaca tttagcctta 300
agttcaaata tgaaattgac cagaggactc gag 333

<210> 673
<211> 354
<212> DNA
<213> Homo sapiens

<400> 673
gaattcgcgg ccgcgtcgac ctctgtcgaa aaaaaaaaaa aagaaaaaga aattagcttt 60
ttccttggga taaacccaaa aatattagag gtttggaatc aaatattatt ccatttattt 120
ggtttttaat cattttgtaa tatgaattat ttttgtgtac taataaaaat aacaacatcc 180
cagaaatgtg agttttcttt aattattttg atgtccctct tgtggtttgg attggctcat 240
ccccttactt cctatattgt cctttcaggt tcctacagtg tggggtcttg cagccagcct 300
gccctcactc ctaatgattc attctccacg gtaagaaaaa gcccaaccct cgag 354

<210> 674
<211> 291
<212> DNA
<213> Homo sapiens

<400> 674
gaattcgcgg ccgcgtcgac atcatgttct aacatgcttt ctcagttacc tattttttat 60
gtttgttgtt tattatcagt atcccttgct agaagcataa gctcactggg gcagggttct 120
ttgtctgctt tatttagtgg tgtataccaa ttgcctagaa cagtgcctgt aagagaacgg 180
tcctcagtga gttggatctg ccaggtggca tctggagtgg ttggtgcaga agtaaaagaa 240
atgatgatgg ctttggatgg attcacatat cagagcataa ggaatctcga g 291

<210> 675
<211> 159
<212> DNA
<213> Homo sapiens

<400> 675
gaattcgcgg ccgcgtcgac gagcatgagg agttattttc ttttcttttt cttttacttt 60
ttttttttctt ttcagacaag atcttgctgt ttcacccagt ctgcagtaca gtggcatgat 120
catggctcac tgcaagcctg catctcccgg tccctcgag 159

<210> 676
<211> 274
<212> DNA
<213> Homo sapiens

<400> 676
gaattcgcgg ccgcgtcgac tgaattctag acctgcctcg agatctttgt gagagcagta 60
ttttctgtgt ttcttttta atttacagcc tttcttattt tgatattttt ttaatgttgt 120
ggatgaatgc cagctttcag acagagccca cttagcttgt ccacatggat ctcaatgcca 180
atcctccatt cttcctctcc agatattttt gggagtgaca aacattctct catcctactt 240
agcctaccta gatttctcat gacgagtact cgag 274

<210> 677
<211> 100
<212> DNA

<213> Homo sapiens

<400> 677
gaattcgcgg ccgcgtcgac cgggcaggtg ttaagtttgt gaaaagtgat gcaatttgtt 60
atacattcaa atgcaaatta gaactagcgc cttactcgag 100

<210> 678
<211> 473
<212> DNA
<213> Homo sapiens

<400> 678
gaattcgcgg ccgcgtcgac ggtatctagc cctagaatgc ctagaacagg aagaggcagc 60
tggtgttctg caaaacttgg acaggggcaa agttgctgaa aaagttttgg tttaacccga 120
agataagtgg aaaagagctt gtccatgaac ccaggttctc actctgttta cagaagtgtg 180
ttgagtacag ttggtgaagg aagaggtaac aaaaaatgct aaatatttta tccatgaaaa 240
tgacttccag aaaaggaaga atatgaaccc cagaccgaag gggaaaagat agttaatagt 300
attatctaac ctggttggta tttgtaatga atggtgattt taattagtca ttagccataa 360
tgatgtttat ttacagtata actcctgaat gctacttaaa taaaccagga ttcaaactgc 420
aagccagcca ggccgttcat tatttaaaac gttttaatcg ggctcactc gag 473

<210> 679
<211> 133
<212> DNA
<213> Homo sapiens

<400> 679
gaattcgcgg ccgcgtcgac tcgagggtgc tgtgttcatg cgtgtgctgt gttgtgtgct 60
gtgtgtgtgt gtgtgtgtgt gtctggcaag caaggtcttg cacacacaca gcactttggg 120
aggccctctc gag 133

<210> 680
<211> 467
<212> DNA
<213> Homo sapiens

<400> 680
gaattcgcgg ccgcgtcgac cgatagtcaa ttccagaaac cgctatgaag ttcctctctg 60
caagagactt ccatccagtt gccttcttgg gactgatgct ggtgacaacc acggccttcc 120
ctacttcaca agtccggaga ggagacttca cagaggatac cactcccaac agacctgtct 180
ataccacttc acaagtcgga ggcttaatta cacatgttct ctgggaaatc gtggaaatga 240
gaaaagagtt gtgcaatggc aattctgatt gtatgaacaa cgatgatgca cttgcagaaa 300
acaatctgaa acttccagag atacaaagaa atgatggatg ctaccaaact ggatataatc 360
aggaaatttg cctattgaaa atttcctctg gtcttctgga gtaccatagc tacctggagt 420
acatgaagaa caacttaaaa gataacaaga aagacaaaac cctcgag 467

<210> 681
<211> 361
<212> DNA
<213> Homo sapiens

<400> 681
gaattcgcgg ccgcgtcgac ccaggatgcc aactttgaat aggatgaaga ctacaacttg 60
ttcccttctc atctgcatct ccctgctcca gctgatggtc ccagtgaata ctgatgagac 120
catagagatt atcgtggaga ataaggtcaa ggaacttctt gccaatccag ctaactatcc 180
ctccactgta acgaagactc tctcttgcac tagtgtcaag actatgaaca gatgggcctc 240
ctgccctgct gggatgactg ctactgggtg tgcttgtggc tttgcctgtg gatcttggga 300
gatccagagt ggagatactt gcaactgcct gtgcttactc gttgactgga gcccactcga 360
g 361

<210> 682
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (9)

<400> 682
gaattcgcng ccgcgtcgac aacaggttga tgagctgcac tctgctgaaa ggagtctgca 60
caatgaaatt tctcatgatg attgtgttct tacaggtatc tgcctgtggg gctgctccca 120
tgaatgacag tgaatttgct gaatggtact tgtcaagatt ttatgattat ggaaaggaca 180
gaattccaat gacaaaaaca aaaaccaata gaaacttcct aaaagaaaaa ctccaggaaa 240
tgcagcagtt ctttgggcta gaagcaactg ggcaactgga caactccgaa ctcgag 296

<210> 683
<211> 536
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (112)

<400> 683
gaattcgcgg ccgcgtcgac ggcaacagca ccaataacag catccagacc attgattcca 60
cccaagcact gttcctcccg attggagcgt ctgtctctct cctcgtcatg tncttcttct 120
ttgattcagt tcaagtcgtt ttcacaatat gtacagcagt tcttgcaaca atagcttttg 180
cttttcttct tctcccgatg tgccagtatt taacaaggcc ctgctcacct cagaacaaga 240
tttccttcgg ttgctgtggg cgtttcactg ctgccgagct gctgtcgttc tccctgtctg 300
tcatgctcgt cctcatctgg gttctcactg gccactggct tctcatggat gctctggcca 360
tgggtctctg tgttgccatg atcgccttcg tccgcctgcc aagcctcaag gtttcctgcc 420
tgcttctctc agggcttctc atctacgatg tcttctgggt gttcttctca gcctacatct 480
tcaacagtaa tgtcatggtg aaagtggcca cacagccagc tgacaatccc ctcgag 536

<210> 684
<211> 136
<212> DNA
<213> Homo sapiens

<400> 684
gaattcggcc aaagaggcct aggaaaacta taaaggtggc cgtacttact aatattttca 60
gatgcactat ttattttgtt tagtttttct tactgtcttt tgtctattgc catgttccat 120
ttccccaccg ctcgag 136

<210> 685
<211> 660
<212> DNA
<213> Homo sapiens

<400> 685
gaattcggcc aaagaggcct acatggttcc aagaaactgc ataagcatac gaaataagtt 60
gcagcctccc gacttatacc ctggtacttc tagtctaaaa caggatttga ctctactaat 120
ccagccttat acaggatgct gtgttctttg ctcctttgtg aatgtctgtt gctggtagct 180
ggttatgctc atgatgatga ctggattgac ccccacagaca tgcttaacta tgatgctgct 240
tcaggaacaa tgagaaaatc tcaggcaaaa tatggtattt caggggaaaa ggatgtcagt 300
cctgacttgt catgtgctga tgaaatatca gaatgttatc acaaacttga ttctttaact 360
tataagattg atgagtgtga aaagaaaaag agggaagact atgaaagtca aagcaatcct 420
gtttttagga gatacttaaa taagatttta attgaagctg gaaagcttgg acttcctgat 480

gaaaacaaag gcgatatgca ttatgatgct gagattatcc ttaaaagaga aactttgtta 540
gaaatacaga agtttctcaa tggagaagac tggaaaccag gtgccttgga tgatgcacta 600
agtgatattt taattaattt taagtttcat gattttgaaa catggaagtg ccgactcgag 660

<210> 686
<211> 381
<212> DNA
<213> Homo sapiens

<400> 686
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgagtct 60
cagaagaaaa aacaacgaaa tatcttatgt taatctaaaa aaccttcagt gacctacttg 120
atctcatttt ctaccatttt cctcctcttt ttctgaaata catcaacaca gagcactttt 180
cctctccttt aatgcacaaa gatggcagga cttttgaatg ttacatttat ttatcttctt 240
ctagagtgcc tttccttata cacccatgtg acttgttcct cccttccttc tagtctttgt 300
ttatatatat attattatca cagagggcta ggaaagaaaa cacccactgc tgcgccccac 360
actcatccac ctaccctcga g 381

<210> 687
<211> 202
<212> DNA
<213> Homo sapiens

<400> 687
gaattcggcc aaagaggcct atcgagggtt tgctggaaaa gtcgtgtgcc ctgcatttca 60
gtaaatattg cttctttaag ggcagatacc tcagattgca acactcatgg tgttttcaac 120
cttctgcata taaagtggga gcgtttacta tcttcccagt gcaaatcact tagacacaaa 180
ggatgatata gaaagactcg ag 202

<210> 688
<211> 518
<212> DNA
<213> Homo sapiens

<400> 688
gaattcggcc aaagaggcct acttctatct atctcagacg ttctttttctt aaaagaagca 60
agactcaggc acactgaagg tcatttccat gggacacact tgattgctta gaaaaacaaa 120
tttgaaaaat actttcttca gaaggaaaga tattgtttct ccagggtaaa atatttctga 180
gggcttgact ctttccaatg acgcctttat gtaagctgtt ggagcagggc tcttaattga 240
taagcagctg tgttaataat tcacaatgaa tagcatattt aaaacgtcaa cccagtgttg 300
attcttatgg cagtatctga ggcgagagag accaaagcaa caatgacaat gaatctttag 360
attctggaaa ctcaggagaa gccacactat ctctagagtc accaccttcc ttttttaaag 420
aaagagggaa ggttcccctc tccaaaggaa agtttgcttc ccaggtaacc gtgatctttg 480
tgacctatta ctgatttcgt ttaaacagag tactcgag 518

<210> 689
<211> 293
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (75)

<400> 689
gaattcggcc aaagaggcct agcacattta aatagccact atactctagc ctaggcaaca 60
tagcaagacc ccatnttaaa aaaaaaaagt atatataatt tcactgaaac ttgccctaca 120
agagtgggta taaattttta aaaattaggc ctaaaaatag agtgtattct ttgtaattag 180
aaattatacc tggattccat ttatctaaca tgctgctgaa gtattttgca agtatagtta 240
cggtattaac agtgtgggct ggtgtaccat tattggtaag ggacaaactc gag 293

<210> 690
<211> 500
<212> DNA
<213> Homo sapiens

<400> 690
gaattcggcc aaagaggcct aggggtagca aggaggtggc ggggcgggta agggtacggg 60
cagtggtgca gaagggaaga aggttgttac gcaaggagaa ataaaaagga acttgaaaat 120
aaaaaggagg gaggaggaaa gcaagctaag ggtactgtta gtgctcctgg cactccgtcg 180
tggggccagc gttgccttga gaccctccac cctccctcag cctcaggaga attaggttcc 240
agtccctcta ggaaggacag ggctgccagt gacacccagg aggaacaggc agtgcgcagg 300
aaccctgggg cggccccagg gttgggggag ggaaggttgg ctggctagag ggcattgtgc 360
caggagcagg atgggggccc aagctgggca gtgtccaggg tcagggcgag ggtggaagac 420
cctcggggtc aagcacagca gagatcgctg gggcagttca ctaggggtga ctgaaggtgg 480
gaaaggaggg gtggctcgag 500

<210> 691
<211> 568
<212> DNA
<213> Homo sapiens

<400> 691
gaattcggcc aaagaggcct acatgtacct ccttctcata actatttctt tcttttgtgt 60
ttttttcagg gctcagaaaa agctctcttg tagtctagaa gacttgagaa gtgaatctgt 120
ggataagtgt atggatggga accagccctt cccggtgtta gaacccaagg acagcccttt 180
cttggcggag cacaaatatc ccactttacc tgggaagctt tcaggagcca cgcccaatgg 240
agaggctgcc aaatctcctc ccaccatctg ccagcctgac gccacgggga gcagcctgct 300
gaggctgaga gacacagaaa gtggctggga tgacactgct gtggtcaatg acctctcatc 360
cacatcatcg ggcactgaat caggtcctca gtctcctctg acaccagatg gtaaacggaa 420
tcccaaaggc attaagaagt tctggggaaa aatccgaaga actcagtcag gaaatttcta 480
cactgacacg ctggggatgg cagagtttcg acgaggtggg ctccgggcaa ccgcagggcc 540
aagactctct aggaccaggg acctcgag 568

<210> 692
<211> 307
<212> DNA
<213> Homo sapiens

<400> 692
gaattcggcc aaagaggcct actcatctct actcatccct tcagccactc aaacctgccc 60
ttctctgccc aggttctcag tcagaatgac cccagtgcca aaatacgatt cagaatgttc 120
ctgtggcata gtcacccagt tccctttttat gtctccattg ctactcactg ggctatacat 180
taccagcttg atctcccatc caccaacacc tctggacact tctatcagcc atctttcagc 240
cttgcttgtt ttgcttccca gcctggtcca ttgtttcaac aacgcttttg ctaacactaa 300
tctcgag 307

<210> 693
<211> 359
<212> DNA
<213> Homo sapiens

<400> 693
gaattcggcc aaagaggcct agttaggccc gacatattgt gagaaaatgt ctggtaacct 60
ttttaacagg tgattgctgg aatttgatga ttgcctccgt aaatgtggag gcacagggga 120
cccgtgtctg cccgcatgca ccctgctaac tggctgcttg ttttccggtg caggtgcttg 180
aggaatccaa agccctcgtg cgctgcaaca tgaagatgga gctggagcag gccaacgaga 240
gggagtgtga ggtgctgaag aaaatctggg gctcggccca ggggatggac tccatgttaa 300
agtacttgca gaggaagatc gatgagttct gagtgtcggg ctgcccactg gatctcgag 359

<210> 694

<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (57)

<400> 694
gaattcggcc aaagaggcct agagatagct gtatttgatt tacaatgaac aagattnaca 60
aaaaggggtg gggtggtctt ggaactgctc ccagtccccc cggactgggt ggggctctag 120
ggcagcctgt ctgacagacc aggaccccag gatgtctggg ccccgacgta ggacttgacc 180
tacgtctcac ttgacctttg acgtggggcc cagcagccgt gagtccaccc agagtgccgg 240
caccccttggg gaggccggtg aggtcaggaa ggcatcgtac cgctttttct cctcctccca 300
tctcgtggtg gacagacaga cataggatct gggaacttgc cctgggggcc acaggccctc 360
agatcccccca ggggcccaac ctagggcatg gaggcggctg ctggtgcgtg ggcggaggcg 420
gaggccagct gcccccagcg tggcagcgta aggcacattt tcaaatcact cgag 474

<210> 695
<211> 180
<212> DNA
<213> Homo sapiens

<400> 695
gaattcggcc aaagaggcct aggtatttgt tgttccttta ttctgttgat gtgaaacatc 60
atgactattg acttgcaaat gccaaaacat ccttctatcc ccgggacaaa tcccacgtta 120
tattgctgta ttatcttttt gatgtgttgt tggattcact ttgcttcgac tgggctcgag 180

<210> 696
<211> 136
<212> DNA
<213> Homo sapiens

<400> 696
gaattcggcc aaagaggcct acacgacagg aaacatgcag ttggggatga tgctcaagtt 60
gttcaaattg tttacttcta ctttggagtc ttcaattaag gtgccagggc tagtgactcc 120
tgggaattgt ctcgag 136

<210> 697
<211> 290
<212> DNA
<213> Homo sapiens

<400> 697
gaattcggcc aaagaggcct aaagccagaa acctgtgtca tcttttcacc ccaccttcaa 60
tcaacaagtc ctcaatcaac aagtcctact gactgcacat cttaaatata tctttatcag 120
tccacaagtc cttccaatta tatttcccaa gtatatctag aacttatcca cttatatccc 180
cactgctact accttagttt agggctatat tctcttgaaa aaaagtgtcc ttacttcctg 240
ccaatcccca agtcatcttc cagagtaaaa tgcaaatccc attcctcgag 290

<210> 698
<211> 152
<212> DNA
<213> Homo sapiens

<400> 698
gaattcggcc aaagaggcct aaaattaacc aacctcaaaa attatatatt gaagcttcct 60
ctactgtaag gaaatccatg aaactgttaa caactgttgc cttttggatg ttgccagtag 120
cccttgggca gaacatgtct tttcgtcacc at 152

<210> 699
<211> 619
<212> DNA
<213> Homo sapiens

<400> 699
gaattcggcc aaagaggcct aagtgcttgt tcaaacagca gattcccagg ccttattttg 60
gcctaaagaa ccagagtcta ggtggtggga cataggaatc tgcatttcag taaactttac 120
acgtgattct tctgcacaca gtattgaaga gcaactagat taaattctag tttacaaaat 180
taccagtttt cttcaagaac taaatgatat gtcctttttt ttttttcaa agaggataag 240
gctgctattt aaataaaata gctaaatgga gagtgagaag tggagcaggt tcattcagca 300
gcattcttaa ttgagccagc attgacaccc agccagcagg cctttgcatt gcattcgggg 360
accatgactc tgaatctgct taccaatcaa tctcggttta atcaccaaaa gtgcagagca 420
ggcaaaatgc agctgtttat caatctcaaa agctttggga cagtgtcata gttgaaagat 480
gagacttaag aaaacagttt cttaaacttc ttaaaactta agaaacattg tttcataaaa 540
caatattgag tgggcattct tctgcacagt gtgatgctcc aaccctggcc ctagtctcag 600
tagaccatgc tgcctcgag 619

<210> 700
<211> 287
<212> DNA
<213> Homo sapiens

<400> 700
gaattcggcc aaagaggcct aaagtactgt gtatggggtt tgctattcta aaaaacattt 60
ttatttttgg aattttagtg gattttactt atccctcatt ggaagaatca attccttcta 120
aacctgctgc ccagacgcca cctgcatcta tagaagtaga tgaaaatata gaattgataa 180
gtggtcaaaa tgagagaatg ggaccactga atatatcaac tccagttgaa ccagttgctg 240
cttctaaatc tgatgtttca cccataattc agccagcgcc actcgag 287

<210> 701
<211> 106
<212> DNA
<213> Homo sapiens

<400> 701
gaattcggcc aaagaggcct actttaaaaa agagcacttt atcacgacaa agggtgcaac 60
taacaattaa aatcagacaa tgctgtttct gcaccgcttt ctcgag 106

<210> 702
<211> 191
<212> DNA
<213> Homo sapiens

<400> 702
gaattcggcc aaagaggcct aggggataat aagaaaaaag tatgtacatg tttagtgcag 60
gcacagctat catttttttt tcaaatattt tcaatctaca gatgcagaac cacagatata 120
gagggccaac tatatctgcc tattttataa atacaaagca ggcaacaccc acaaagacat 180
atttactcga g 191

<210> 703
<211> 534
<212> DNA
<213> Homo sapiens

<400> 703
gaattcggcc aaagaggcct aatggaggaa gagacctgtc ccaatgtgtc attcggtaga 60
tctcactttc tcctagtacc tcatagtcat tcatttttca cccccaacag acaagtggag 120
actgatatta ttccctttta caatgtaaca aaatcaaagc ttagaaaacc agggggtttg 180
gaaaataagg aatttgtgta ggattaaaat agaactttga gctcctggac tctgaatctt 240

agcttctacc ttgcacttaa ataaatttat gctaacagat gtcctgtcat cagataggac 300
ttttttttt ctttttaatg tcggcaagtc tcattgttac agctctctgg tctgcccagt 360
ttggttacac ctgttttgag attccttgcc tataccсttc caactgaaga caagcacttc 420
ctactgtact tacagaactt tcatctatgt cttggtttaa tcttttgcct ttgttttaac 480
cgtttaccac ttctgcttta tattggtagg taatcttacc cccaaatact cgag 534

<210> 704
<211> 591
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (43)

<220>
<221> unsure
<222> (90)

<220>
<221> unsure
<222> (107)

<220>
<221> unsure
<222> (154)

<400> 704
gaattcggcc aaagaggcct accaccagcc aaggcctagg agntgctgac ctggtcagcc 60
ctcaccccag ccaggcagag aggcaaaacn tgggggtccc cggcaantac gagattggaa 120
aggttcatca gccctccccc atctgcccca ggcnttgtca gggaatcagt gggctcagaa 180
ctggcaggcg gtgcaagctc tgcttccctg ggccacactg agggctgggg ccagctcccct 240
ggatgggggt ggagtttacc agcagcctgg ggacagcatg tctccttttt aggaaatgtc 300
cttggaggaa gagttcatgt gtggcgctgg tcagcagcta gtcccgcttc caggacactg 360
gtcagagtta ccgatgaggc ctgggggctc ccgcttggaa acccctccag ctcctcccat 420
ctgcccagac agagcgacag atggcaccaa tgcatgctgg ctccctcatt cctgcccagg 480
ggctgtggct tacggccagc accctgtacc tgggactcag cccttatccc ccctctgcta 540
tctgtgctgg gagaggggct tcggagggaa acagatatga ggacactcga g 591

<210> 705
<211> 694
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (554)

<400> 705
gaattcggcc aaagaggcct agttttattt tttcctttaa ttaacagtac tagtgacttt 60
gtgaaagaat atgagttact atttaggtat gcttacttaa ctacaataca ctacattgca 120
gtatttctga aacctaggac atacacatta tatataacaa ctctatattg aaatatatat 180
tacattatat tcattttaac ttttgaatct gcctatgatc atgagttgat tgaaatatta 240
tgtctttgct tatatcaccc atcaccaacc tgctgcagtt aatctggtgc atctagtaat 300
aatcattagt gctctaattt gctttttata ttatcagctt cagtattgtc tttagaggat 360
tttagaattt tttaaagctc agacttagca aatgtaggaa agtgaaaact ttttttgaaa 420
ctttttttgtt ggtgtgacta atacaaagag gttcatattc aaagtgatct tgtttagctg 480
acccactcaa tatctgaaga acaaaagagg tgcatatgaa tgtatctgtg attttcccct 540
gtaggactgt cacngtctat atttgctttt aaaaatatga ccaaggggct acttaagtgc 600
cacatgatct gaccaacaat aacaggctgc gtttcaaagg gccagtcttc tgaaaagcgt 660

aagacagtga attacctagt tgtccccact cgag 694

<210> 706
<211> 544
<212> DNA
<213> Homo sapiens

<400> 706
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgaggat 60
gaccttagag gagagaccag aagaagaaaa gaataaggag ctgcccagta cacacctgcc 120
caccaacgct gggatcctgg cggccaccat cattggatct cttgctgccg gggccccttct 180
catcagctgc attgcctatc tcctggtgac aaggaactgg aggggccaga gccacagact 240
gcctgctccg aggggccagg gatctctgtc catcttgtgc tcggctgtat ccccagtgcc 300
ttcagtgacg cccagcacat ggatggcgac cacagagaag ccagaattgg gccctgctca 360
tgatgctggt gacaacaaca tctatgaagt gatgccctct ccagtcctcc tggtgtcccc 420
catcagtgac acaaggtcca taaacccagc ccggcccctg cccacacccc cacacctgca 480
ggcggagcca gagaaccacc agtaccagga cctgctaaac cccgaccctg ccccccttact 540
cgag 544

<210> 707
<211> 181
<212> DNA
<213> Homo sapiens

<400> 707
gaattcggcc aaagaggcct agtggaattg gaaagggtgg tatctgattt ggttgttcag 60
gcaaattatt ctgctgctga tttaacaagg tgtgctgctg tggaattgga aagggtggtc 120
ttggtagctg gggaagggga tgaaagtggc gattagggat tgcatactgt gcggtctcga 180
g 181

<210> 708
<211> 103
<212> DNA
<213> Homo sapiens

<400> 708
gaattcggcc aaagaggcct agttagattt acttaaaagt ttgaaagctg cttgtagaga 60
ctacaataca atggtaaaac ttttttccac aagagcactc gag 103

<210> 709
<211> 463
<212> DNA
<213> Homo sapiens

<400> 709
gaattcggcc aaagaggcct agtgacaggc agccttagtg agaatgaccc acttcgtttt 60
aagcctcatc ccagcaatat gatgagcaag ttgagctctg aggatgagga ggaagatgaa 120
gcagaagatg accagtctga ggcttcaggg aagaaatctg tgaagggagt gtctaagaaa 180
tatgttcctc cacgcttggt tccagtacat tatgatgaaa cagaagctga gcgggagaag 240
aagcgtctag aacgagccaa gagacgggca ttgagcagct ctgtcattcg tgaacttaag 300
gagcagtact cagatgctcc agaggaaatc cgtgatgctc ggcatcccca tgttacccgc 360
cagagtcagg aggaccaaca caggattaac tatgaggaga gcatgatggt gcgtttgagc 420
gtcagtaagc gagagaaagg acggcgaaaa cgagcggctc gag 463

<210> 710
<211> 167
<212> DNA
<213> Homo sapiens

<400> 710

gaattcggcc aaagaggcct atttttgttt attcttccat agtctagatt tgccaaatga 60
aggctttgca cttcttcttt ctgaatcttt ctgactttgt ggtggggaaa gaagatgatg 120
aggcaggtcc atcccacagc tggaggcttt ctgagagcag tctcgag 167

<210> 711
<211> 112
<212> DNA
<213> Homo sapiens

<400> 711
gaattcggcc aaagaggcct actgagggag gctgcagggc tggctctaga gtttcctttt 60
tcagtcttaa cctggtgacc agcttccaca gaaattggca tggtgactcg ag 112

<210> 712
<211> 418
<212> DNA
<213> Homo sapiens

<400> 712
gaattcggcc ttcatggcct atttttagta attgtacatt tttcattcta gagttttcta 60
taaatttgag gcttgccttc tcaaaaaaga aactatgcag ccattgaatg aaatgtcttt 120
ggggtacggt gtgactggaa tgtttgttag aaatttgttc acactatcaa atattgatat 180
cttggagcca gcagaagagc agattttggg aggtggtaat aacaaaattt aatttcttcc 240
caacaactta attttctcat ttattttaca gaatagtagt gaaatatttg atgaaacttt 300
gtattttggt agcactacat agaaaatgtg ttttagattt atgatgatca tatttctcac 360
caatgtaatt tcagtctcag cagtgatttt caaacttagg gaaagggaca gactcgag 418

<210> 713
<211> 305
<212> DNA
<213> Homo sapiens

<400> 713
gagcatattt ataatagctt tttaaaaaag tttttgtttg ctatttccaa catctttgtc 60
atcatttggc ctgtttatat tgactgactt atctgctgag tatgggtcac agcttcctac 120
atcttaacgt gtttagacac tttttattct atgctacaca ttgtggatgc tacttttttg 180
agattctagg ttcatctgct ttgaaacagt ttttctcccc tctttttgtt gggctgtcag 240
ctgttacttc ttgtagctgt cagaatactt gcctctggct actatattct ccaccccccc 300
tcgag 305

<210> 714
<211> 316
<212> DNA
<213> Homo sapiens

<400> 714
gcgattgaat tctagacctg cctctccccg tcgactgtct ttctttaaag caactgcaat 60
ttcttccctt acttcctcac tgtctgttgc tataatttgc ccattgtgaa ccatctgtga 120
attctgtctt aggtattcca tgaatccatt cacatcttca tttaagtact ctttttcttt 180
tttgttcttt ttatgttttg cttggggtgc atcatttttg agggatagcc tattggcttc 240
aagttgttta cgctttggta ggttttggct tgttccctca aaggatccct tcttcatgtc 300
ctcccatgaa ctcgag 316

<210> 715
<211> 374
<212> DNA
<213> Homo sapiens

<400> 715
gaattcggcc ttcatggcct agtgagaagt accatattat tcccttatac tatataatat 60

aaagagaaca ggtattcaaa ctggaataca aaagtaatga agccttttta tgcattgcac 120
tcatcattcc ctccttcaga ggtggtgacc tgcagccatg atggaaagtt ctctctgccc 180
ctctgccctc tgaggtcatg tctggatctg tgccattaga acttgggcct gttgggagag 240
gaggcggagg cctgaaagca gtttacataa agctttcagt aatggttggt ttttaaacag 300
gcttgctatg tgctggtagc ttctttgtgc atcttgccta gacaattaaa aatatttgct 360
ccatgtccct cgag 374

<210> 716
<211> 369
<212> DNA
<213> Homo sapiens

<400> 716
gtctttttaa ggatggtgct gctccactgg tgcctgctgt ggctcctgtt tccactcagc 60
tcaaggaccc agaagttacc cacccgggat gaggaacttt ttcagatgca gatccgggac 120
aaggcatttt ttcatgattc gtcagtaatt ccagatggag ctgaaattag cagttatctc 180
tttagagata cacctaagag gtatttcttt gtggttgaag aagacaatac tccattatca 240
gtcacagtga cgccctgtga tgcgcctttg gagtggaagc tgagcctcca ggagctgcca 300
gaggacagga gcggggaagg ctcaggtgat ctggaacctc ttgagcagca gaagcagcag 360
atcctcgag 369

<210> 717
<211> 587
<212> DNA
<213> Homo sapiens

<400> 717
gaattcggcc ttcatggcct agggacatct tggtgagatt taggtgaata atagtttaaa 60
aatagcaaca ccagctgcca ttgacagagc ttgcaagcca ggcccttccc aagtgtgatc 120
gcatttcatc ctcaggcaac tttatggggg aaacaattat tgtcccgttt cccagatgag 180
gtaactgagt cctcagcatg ttttcagcca gcctcacagc tgtccccacc cctggcctcc 240
aaacagaggg gctggcttac catttccaca aagcagtgtg aagctggaac aggtgaggag 300
ctctgagttt cggccgtgtg ctggggagtg ggctcaggag acacgctggg ctgtgggttg 360
gcacactgaa aggtacaggc cggctgagtc acagcacccc ctctgggctg gcaacagagc 420
cgtccacccc acacctgtag gtatgccaac gagggccggc tgaggccatc tgcagcctgt 480
gtgctgccag cagcgggcgg aggcaggaag ggcctcctg cccggtgccc cctgctggcc 540
aggctccccc cactccccac aggaggaccc tccccaccct cctcgag 587

<210> 718
<211> 599
<212> DNA
<213> Homo sapiens

<400> 718
gaattcgcct tcatggccta cctgcctgat ggctctcctg acaaagttac tgggcccagc 60
aaaaggaaaa gggaactgct tgttcaggcc catcgcagac gtaaaataca ccctcttgaa 120
aaaatagaca taacaaaaac ttaagtaaaa aaaataaata aaaagactaa atgtgcatgt 180
ttgagatttt tgtccttgtg cccttttttgt gtccatgggc ccatgtgtcc gtggagtggt 240
tctgaccatt ccaggtgaac tttaaaatca cccctctgca ctttggaatg ttggggacag 300
agctgtttcc ttcagactca ttagaaaatg accagccaac tgtggccatt ttcttctcct 360
ataaaggctg ggttctaag catttgtttc atggtgaaaa gtggattcaa cctgctcttc 420
ttcttcctgc gtagtcactt ttttttactt ctacctctgc ttactcagct gtctaaaaac 480
gaaaaatgct cattctgatc cacaatacta gccatttctt gaagacattt tttttactca 540
atcttaaatt gatcacatgg ctctgttgtt cttcatttgt tttctgcaat cctctcgag 599

<210> 719
<211> 508
<212> DNA
<213> Homo sapiens

<400> 719
gaattcggcc ttcatggcct agcattgttt agctttaaaa tgcatctctc tgagcttttc 60
tccccattaa caccagctgc cttacatcct cttcttaccc ttgattttta tcccatcatt 120
gatcctgctt cattcccagc agtcagcccg tcgcaggcac cgagaggtca aggttcttgg 180
gtccacaata tttccagact ccacacaacc cttcaggtcc tggcctgggc aaccagctga 240
tgcggtgagc ttttctcatc atctcctgtc ttcacttcag atctgtcgcc cactgtgagg 300
ggattcctgt ctcacccatt gcctctctgt gggtgctttt tggacttgtt ttagccacag 360
agcacttcct gtcagaaatc gggaaactac tatgctgtac ttactgctcc ccacttcccc 420
caccccgggt gtctgagaaa ctctcagggg tcctcaaaga acagtttgaa aagccagtct 480
ctttgcccct acatcagcct gcctcgag 508

<210> 720
<211> 358
<212> DNA
<213> Homo sapiens

<400> 720
gaattcggcc ttcatggcct actctttcaa atagatttca ggcctctaga gtctttcaac 60
cctcacattc aggaataatt ttatgtaaat tttcatgctt tataatgttc ttactttttt 120
ctattcaatt ttgtctatat attgatgatt aagatgtatt ttatttattt ttatccatag 180
ctttttccat ataagtatgt atcttagggt cagaactgct gaaagagaca aactcagcca 240
aaaacacttg gaaagcatat tttggtatct gcattgcttt gcatatctaa attttcccat 300
aaagtaataa agtaaaatgg ttgcagcagg aaagaagttc atcttcattg ctctcgag 358

<210> 721
<211> 298
<212> DNA
<213> Homo sapiens

<400> 721
gaattcggcc ttcatggcct actttgtcct tgtttgtttt ctttcaatag tcaggtccct 60
cttccatagg gctgctgcag tttgccgggg gttcacttca ggccttattc atctgattca 120
ctcctgtgcc tgcagatatg attcaaggag gctgaagagc agcaaagatg ggtgcctgct 180
ccttcttctg ggacctctgc ccttgagggg gactaagctg atgttagtag gatcgctcct 240
gtatagggtg tgtctgacaa ccccggttgg agggtctcac tcagttgggc ggctcgag 298

<210> 722
<211> 488
<212> DNA
<213> Homo sapiens

<400> 722
ggttttgcat ttaaattttt ttagaaagca gaatcttaac ttatcttaat gatatttacc 60
tatccttttt gcaactcaca actgactttg tcacagaggt aatgcatctg cttgcaggaa 120
gtagctgtag gctcagtacc tgttgtttga gtcagattta gcagatttgg tttttaagct 180
tgtgggtttg tgctaatttg ggcagaatat atttattata tatgtgtgtg tgtatgtgtg 240
tatgtgtgtg tctgcatatg taatacatgt acataaacac acatgcatgt gttcatcctc 300
tgacacaccc acacaacacc aacaaacatt tcttctatag gctttttatc tcaactgaca 360
ctgttttttt tcccaaataa atttgacaca ggcagaaagg tgggtgaact ctcagaactt 420
ttggtgggtg gatattcatc tgaccagtga gctctgaaat ggtttcccta cacagagtgg 480
ccctcgag 488

<210> 723
<211> 406
<212> DNA
<213> Homo sapiens

<400> 723
gaattcggcc ttcatggcct atgctcaagg aattatagga ctaattctct ttttgttgtg 60
tgtattttat tccagcatcc gtacttcaaa caatagtcag gttaataaac tgactctaac 120

aagtgatgaa tctacattaa tagaagatgg tggagctaga agtgatggat cactggagga 180
tggggacgat gttcaccgag ctgtagataa tgaaagggat ggtgtcactt acagttattc 240
cttctttcac ttcatgcttt tcctggcttc actttatatc atgatgaccc ttaccaactg 300
gtacaggtat gaaccctctc gtgagatgaa aagtcagtgg acagctgtct gggtgaaaat 360
ctcttccagt tggattggca tcgtgctgta tgtcttgaca ctcgag 406

<210> 724
<211> 332
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (121)

<400> 724
ggctgttgat atctacatta atgactatgt ctatgtctat gttgctgttg atgtctgtgt 60
ctctggctat ggctatgtct atggctatgt ctacgtcact gttgatgtct gtgtctgtgt 120
ngatggccgt gtctatggct gtggctatgg ccatgtctag gtctatgtct acttctatgt 180
tgctgttgat atctacatta atgactatgt ctatgtctat gttgctgttg atatctgcgt 240
ctgtgttgat ggccatgtct atggctgtgg ctatggccat gtctaggtct atatctactt 300
ctatgttgct gttgatacct acatttctcg ag 332

<210> 725
<211> 302
<212> DNA
<213> Homo sapiens

<400> 725
gtcaacccaa cacaggcatg ctcatctgga aaaagttttt gtctcgccca gccttgccat 60
ttatcctaag gctgcttcgg ggcctggcca tccagcaccc tggcacccag gttctgattg 120
gaactgattc catcccgaac ctgcataagc tggagcaggt gtccagtgat gagggcattg 180
ggaccttggc agagaacctg ctggaagccc tgcgggaaca ccctgacgta aacaagaaga 240
ttgacgcagc ccgcagggag acccgggcag agaagaagcg catggccatg gcaaaactcg 300
ag 302

<210> 726
<211> 588
<212> DNA
<213> Homo sapiens

<400> 726
gaattcggcc ttcatggcct accagagcat cacagtgccc attgatgtag tctcccagca 60
cctgatgatg caacgcaagg gtgagaaaat gggccgcttt caggtgcggg ggaacccaga 120
gggacaaggg gtagttgcct ttggccaaac caaggacatc atcaggcaga tcctgcaggc 180
tgatggactt cgcggcttct atcgaggcta tgtggcttca ctgcttacct atatcccaaa 240
cagtgctgtc tggtggccct tctatcactt ctatgcagag cagctctcct acctgtgtcc 300
taaggagtgc cctcacattg tctttcaagc tgtctcgggg cccctggctg cagccactgc 360
ctccatcctc accaatccca tggatgtcat acgaacccgt gtgcaggttg agggcaagaa 420
ctccatcatc ctgaccttca gacagctgat ggcagaagaa gggccttggg gcctcatgaa 480
gggcctctcg gccagaatca tctcagccac accttccacc attgtcattg tggtgggcta 540
tgagagcctc aagaaactca gcctccgacc tgagctggtg gactcgag 588

<210> 727
<211> 290
<212> DNA
<213> Homo sapiens

<400> 727
gaattcggct tcatggccta taggccatga aggccgaaca aaacagctgt atgtaatcat 60

tgccactagt tccatctaga actcctttct agtttgttat ttttaaaatg tttatacata 120
aaaccaccaa aatacatagc ttcgacaaga tggaagttta tttctctctc ccataacagt 180
gcagtgatag tcagctggtc caggccaggc aaggggctgg tccatgatgt catcaggcac 240
ccaggttcct actgtcttgc catgtggcca cagttagcaa cttgctcgag 290

<210> 728
<211> 366
<212> DNA
<213> Homo sapiens

<400> 728
gaattcggcc ttcatggcct agggggattg cagagctgtg atcagagcct caatcagagt 60
ctgggcagga gggtcggagg gcagaagttg aagctccctc tgccctgcac cagccttctg 120
aaacctcctg tggacggagt cactctggat aagggatgga cggcaggtga acataagtcg 180
tgcactctga gcttctggga gtcccaaggc acagaggcct gtactgcctg gcaagcctct 240
gccctctaag ggcagcagac agggaagaca gtggtgtgga gggcccagat ccaacttgcc 300
tcctgtccac ggagaccggc ccagctatgc ctggggaagg ggctctgctg atcgagtcct 360
ctcgag 366

<210> 729
<211> 388
<212> DNA
<213> Homo sapiens

<400> 729
gaattcggcc ttcatggcct aattgaattc tagacctgcc tcgagacatg cccggtcgct 60
gaaggtccct ctacagcggg gccgggggagt ttcccgccgg cgaagacttt gaggccttgg 120
caggacaatt gtcagcgtag tgacctcctg ttccacagta gaggcacagg ttcagctttc 180
tgcgtctttc tttttcttcc tgcgtcaggc gcatgcgggc acctcccacc ggctcggttg 240
gatctacctg gtggtggctt gcaatgtgag gcaacaccag cgcccggggt ggcgagcgtg 300
gcttgcgagc tgcagcagcc ctggccagcc ttctctcaat gtgaatgcac tgcccaatca 360
gagcagacag cgacttggcg acctcgag 388

<210> 730
<211> 351
<212> DNA
<213> Homo sapiens

<400> 730
gaattcggcc ttcatggcct atgactgaat ctattttaag atctaaatta gcatctcttc 60
agacacacgg aacagctgct catttcaatc actcttctca tggagaaacc gaagaccaga 120
ggggacaaga ctagtccaag ggcatgggga gtcatgggta ggctggggtt ggaattgcaa 180
tgtcctgact ttccccgtca gcacactttt gtgtacccgg taaaaaccac taccaccatc 240
atcattgcca ccatcactac catcatcagc actataatca tcactaccac tatcgtcacc 300
atcatcacca tcacatcgtc atcaccacca ttatcaccat catcactcga g 351

<210> 731
<211> 401
<212> DNA
<213> Homo sapiens

<400> 731
gctcgagcct tatcaccatt ttgttctttt atagttgcta atgttttagt cagtcgcgca 60
cgctcaattt caacataaat cttgccttcg gtaaccattc gtagagtatc aattaatcga 120
agtttgatag gaaggtctgt gatttcctca acataagtac agcactgttg aaccattttg 180
gcaacagctt gttttaactg actccgcctt ttggacaaaa gcataatatt ttcattaagt 240
aaatcccatt ctttagcctc atagcacatc ttcactactg caactaagat acgggatgtc 300
gataccatat cggaagcagt acgagtctgc ttttccagag agagaagggt ttcaatgact 360
tcttgaagtc ttccttcctt ggctagcttc gcacactcga g 401

<210> 732
<211> 278
<212> DNA
<213> Homo sapiens

<400> 732
ggtccgtagc tcatgctgta acattactct atcaatcaac agtgctctga tatgttgttt 60
tttcccatgg agccgatttt ccattgattt ctttactaag ttgaagcttt tccatcggga 120
gtcaaattca tgcttgtgag atccttggaa ttgtaaaagg tctccaataa tctttataat 180
aagaaacaat gacttagtat catcttctga attatcaagt atgtggttaa gaagtttcct 240
tataactgta gcaattactt ctcggtggtt ctctcgag 278

<210> 733
<211> 252
<212> DNA
<213> Homo sapiens

<400> 733
gggccctcat caacttcttt gtgtggagct cccagggtaa aaagaccatt atcgagtgca 60
tgtatatagg ttccctcatc catttcaatg gctatggttc ctgaaatttc accaaagttt 120
gttactgtcc accagattcc aacatatcaa gctgggtttc ttcatcttct tctctttttc 180
ttttcttatc tttgttcttt ttcttcttac tgccacttat tctggcatcc tcatgagccc 240
agactcctcg ag 252

<210> 734
<211> 341
<212> DNA
<213> Homo sapiens

<400> 734
gaatgctgag tctggggaca ggtagagaat ctcttcaaga aaaggaaaaa gcctccagaa 60
aaggaagctt tggagagatg gggaacaaa ctgtgaaagc agtgcagaaa ttaagtcaac 120
agcaggagtc agtttgtccc agggagagca cggtccctgg gcactccagc ccatgtctag 180
acaattcctc atccaaagct ggtagccaat tcctatgcaa tggaggaagc agagcaacgc 240
aggtgtgtcc acaggaagat ctcaggccgg aggcacagga agcaacacct gccaaaacag 300
aaatctgtcc ctgggaggta aatgaaagaa caagtctcga g 341

<210> 735
<211> 275
<212> DNA
<213> Homo sapiens

<400> 735
gaattcggcc ttcatggcct aggtggtagt atagaaaggg gatataaacg aaaaataaaa 60
tactgaattg ccacatattt agagtctgtg ttaaaattgg aaagatgtta gatgacttca 120
taattttggt attgcttctt caagtcaaaa cagcgtgttg cttccaggat tttggtgaac 180
acagcagtgt gagttgcagt gcttcggtgc tcatagaaga atttcaaata cttcagagca 240
ttcgttttca tggaaccctt cctctccccc tcgag 275

<210> 736
<211> 296
<212> DNA
<213> Homo sapiens

<400> 736
gaattcggcc ttcatggcct aagacctgcc tcatctcctg gcctctgagc ttttccctgc 60
ccattcattc tccatccaga gccagggcac caattctatc ctgacagcct tctgctagag 120
ccatggctta gagatctcat ttggggatac acgtttgttg tgtggccatc atgtgtggct 180
gcatggagtg accgaagtga atcatctgcc tgcaagcgtt tacactcagg tgagcacaat 240
tcacatactc cttggcttag cacatgtcac caaacttaca tacgtcgaac ctcgag 296

<210> 737
<211> 327
<212> DNA
<213> Homo sapiens

<400> 737
gaattcggcc ttcatggcct agtgccagct tgctaatttt cacagaagtt gatggcaatt 60
cttcacatgt aaacagtgcc agtccacaga acctttatat attttttgaa gccagtactg 120
tgctctgcat ataacaaagc tgcttcaagg atgagacctt tttctaaaag catgtaatgt 180
gagaagccgg cctgccttat tttctttttt cttttttaat gattaaaaat agtttgtggc 240
aaggcacggt ggctcggcct cctgaggtgc tgagattaca ggcgtgagcc actgtgccag 300
cttgctaatt ttcacagaag gctcgag 327

<210> 738
<211> 225
<212> DNA
<213> Homo sapiens

<400> 738
gaattcggcc ttcatggcct aggcttttag gagttgctta ataatccagc caacataaca 60
ttattttcaa gggaaacctt ccagaatgcc aaacactgcc ttatgagcta ttggtaactt 120
aacttttatt tatttgagta tcacacttca catataaatt attcacacaa atactcttta 180
gtcagttaac acagtgttgc tggagatctt acagcagtcc tcgag 225

<210> 739
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (105)

<220>
<221> unsure
<222> (244)

<400> 739
gtttcctgtt catttcaggt gttttattga gcatctgatt tgtgtcagca ccatgtaaat 60
atgatgagga gtatttggaa tagactttac attcaccaga aaatngatag tatttgttaa 120
accaatgcat ccattcaaaa tagaggcaga gtaaacagcc taagaaatga tttcctttct 180
acagtctgct aggagaaaga ggtgagaggg gagtggttga tgattttaat caagagtaaa 240
gggnacattt attacatgaa atctgacttc agttgtgcaa aggtatgtta agacattaag 300
acaattgctg gaaggtttca aatatgtgta cacacacata gagctacttt tgtgtgttta 360
tttatatgta tatttcacaa aggctaatgc ccacagagga aaatgattat tttaacttct 420
gggttatcat ctgcgacggg tctcgag 447

<210> 740
<211> 338
<212> DNA
<213> Homo sapiens

<400> 740
gaattcggcc ttcatggcct actttttctt tagatgtgta cctcatttgc tgaagttgtt 60
ttctgcctta aatgagattc acattcctca agagtctgcc catcctttga ttgtatatgc 120
atctttctca ttgaaattca ttgttatact ctctcctgct tctgtttagg cagtctgctt 180
gggaagggga ctaagacttg ccatgggagt tttgactcag gattttcagt gaaagtagag 240
gagtgtgtag aaagtatttc tgggctggat atcctggaga ctgctctact aggaatgaat 300
gcttcctttt tttccccagc caccttgcct gcctcgag 338

<210> 741
<211> 307
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (152)

<220>
<221> unsure
<222> (161)

<220>
<221> unsure
<222> (177)

<220>
<221> unsure
<222> (268)

<400> 741
gaattcggcc ttcatggcct acttgcagtg aagcagagat tgtgccactg cactccagcc 60
taagcaacag agcaagacac cggctcagaa aaaaaaaaaa atagttacaa agttgcagaa 120
aatttaaatg agttgctcag aggcctggag cntgaaaccc nataaaaatg gaagttngag 180
tgcgtgtcat tttcttccaa gctagttaat catttctcat taagttctac atttagtttg 240
taatgtgcat gttttattta tagctcangg tgataaacaa gacaaagtca agcagaaagc 300
gctcgag 307

<210> 742
<211> 487
<212> DNA
<213> Homo sapiens

<400> 742
gaattcggcc ttcatggcct aggcggcttt gagtcacatg gatcagcttg acctccagtg 60
gggctggaga ctaaggttag ccacatgggc atgcaaccat ggaaccccag taaaaacgtt 120
ggacataaaa aatagagtga gcttccctgg ttggcaataa tccatgagta tggtcgcaca 180
ccagtgccac caggaaggtg tcatttttca caactctaca gggacaggac aattcaaaac 240
tccaacattt ggaacttccc cgaactctgc cctatgcacc tctacccttg gctcattcta 300
atctgaatcc ctaaactgca ataaactcta actatgggta tgagagcttt caatgagttc 360
tggtgagtct acttttaaag gaacaggatg gaaactccag tgtagctcta gggacttgcc 420
caaccctacc gcaaatacca agttcttaag agttctccgg cagttcccaa ggtgcactcc 480
actcgag 487

<210> 743
<211> 260
<212> DNA
<213> Homo sapiens

<400> 743
aattcggcct tcatggccta ataaatttga aactttcaac aacatatttt tcagccataa 60
aactttcatt aagttttaag gaacagcttt ataaaaaagt tagttttcta cattctttca 120
tctgatatag taaaatgcag ttcgatttta taatttcatt tatttctttt ttttttgctg 180
acacccggca ctttattagt ggggaaactc gccttggtct ggcagagact gggatcaaca 240
ggaccagcac ccatctcgag 260

<210> 744
<211> 523
<212> DNA

<213> Homo sapiens

<400> 744
gaattcggcc ttcatggcct aaagaataat tatatgagtt aatttttttc tttttttggg 60
ggcttgctac tgattagcca aaggcagggt ggagactggc gggtttgaaa ttagagacac 120
ctgtgctgtt ttgggaagtt gaggctcttg acctaggatt tgctgaagtt ggtgcaggag 180
aggtcagtgt aggttaatat tttcagagct caaagcaagt gtggattggg gttgtttata 240
ggtgcagttt tgcttgatct ctgtatctgc aaatggagta aaaaagtaca gtactgctgt 300
tttgggaaac ttctgcaaaa gtccctgagc caatgcaaat taattttctt caaaaatacc 360
aagaaaattc cccatttggc tgtttcacct ggttgaggga attgactctt gtcattatgc 420
ttgtaaagaa attaccaggc tgggtgtggt agttcatgcc tgtaattcca gcactttggg 480
cggctgaggt ggatgaattg cttgaatcca ggaatttctc gag 523

<210> 745
<211> 275
<212> DNA
<213> Homo sapiens

<400> 745
gaattcggcc ttcatggcct agtaggatta tgttccttct ggaagctgta gtggggatct 60
tttccttgca ttttctaact cctagaggct gtctgtattc cttggctcat ggctcccttc 120
taaagaagta aaaaggcctg tatttcagat ggaatacttg atctgtgtaa tccatcaagt 180
agataaaacc actttttttgg tttattgaaa caagaccatg aaagtaaagt tttgaaaaag 240
aaaacaaatt ttcaattcga atccccaggc tcgag 275

<210> 746
<211> 688
<212> DNA
<213> Homo sapiens

<400> 746
gaattcggcc ttcatggcct agtttctgtt tattttctat cagagcgaat ataggaaaag 60
aggattccag gaggtagtca ccccaaacat cttcaacagc cgactctgga tgacctcggg 120
ccactggcag cactacagcg agaacatgtt ctcctttgag gtggagaagg agctgtttgc 180
cctgaaaccc atgaactgcc caggacactg gtattcggca gctttgaatt tctactgaag 240
attttcacat gctacaattc atcctgggtt cttccctcct ttaacaacat tttcattaaa 300
aacaaattat gtgatcagaa gagcatttaa acgcaacatc tttgtattat atcttctgca 360
cctgattaga tccccacttt tttttttttt tttttaaaga ggtcttccaa ctggagtgca 420
ggtatgcgat tatagctcac tgcagctggg actgcaggta tatgccacca tgcccagcta 480
atttttaaaa ttttatttct gtagagatga ggtcttgcca cgttgctcag cctggtctca 540
aactcctggc ctcaagcggt ccttcaacct tggcttccca aagcgctggg attacaggca 600
tgagccactg tgcccagcca gatctccaga tctgtgggca ttcagtaatg gtactgggat 660
catagcaatg accaaggcag cgctcgag 688

<210> 747
<211> 621
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (92)

<220>
<221> unsure
<222> (111)

<220>
<221> unsure
<222> (145)

<220>
<221> unsure
<222> (255)

<220>
<221> unsure
<222> (293)

<220>
<221> unsure
<222> (306)

<220>
<221> unsure
<222> (348)

<220>
<221> unsure
<222> (406)

<220>
<221> unsure
<222> (437)

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tgctgtactt gttttcttcg atgtnctcaa aataccctcg gccatgatct tctcgcggtc 180
ttttaacgcc tctcttttta tctccacctt tctgttctgt tttgccgtct cctcccgcct 240
gctgttggcc ctgcntcgcc cctggcggcg ccaccgtcac cgcgaagagc gangtggggc 300
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cctcctccgt cgccganctc gtcttccccc ctccctggaa gccctggtcn ntcgcngttc 480
tcgttntncn gannctgctt ctncttcctt ccatcgncnc nggnntnanc cgccccccncc 540
gcccngttct cctcncccan ctnccntntn gtngccnttc canannggng atnaccntta 600
ggcntctntg gngcgaaatt c 621

<210> 748
<211> 295
<212> DNA
<213> Mus musculus

<400> 748
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gagagtgaag gagaaagaag ctgaacttaa ggaggcagag aaagagcttc acgagaagtt 120
tgaccttcta aagcggacac accaagaaga aaagaagaaa gtggaagaca agaagaagga 180
gcttgaggag gaggtgaaca acttccagaa gaagaaagca gcggctcagt tactacagtc 240
ccaggcccag caatctgggg cccagcaaac caagaaagac aaggatctcg tcgag 295

<210> 749
<211> 395
<212> DNA
<213> Mus musculus

<400> 749
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cgggccgaac agcatgacgt ccgctttgga gaactacatc aaccgaactg ttgccgttat 180
tacatcagat gggagaatga ttgtgggaac actgaaaggt tttgaccaga ccattaattt 240
gattttggat gaaagccatg aacgagtatt cagctcttca cagggggtag aacaagtggt 300
actaggatta tacattgtaa gaggtgacaa cgttgcagtc attggagaaa tcgatgaaga 360
aacagattct gcgcttgatt aggggaacac tcgag 395

<210> 750
<211> 441
<212> DNA
<213> Mus musculus

<400> 750
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gctctctgca tcccctggac ccaaggcagt gatggagggg gtcaggactg ctgccttaag 180
tacagccaga agaaaattcc ctacagtatt gtccgaggct ataggaagca agaaccaagt 240
ttaggctgtc ccatcccggc aatcctgttc tcaccccgga agcactctaa gcctgagcta 300
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<211> 243
<212> DNA
<213> Mus musculus

<220>
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<222> (46)

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cgtagcttac aaagcttgga ggcaagtctg catgctatgg agtccaccag agagtcactg 180
aaagcggagc taggaacgga tttgctttct caactcagtc tggaagatca gaaaagactc 240
gag 243

<210> 752
<211> 507
<212> DNA
<213> Mus musculus

<400> 752
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gcaggcatcc caggacatcc tggccacaat ggcacaccag gccgtgatgg cagagatggc 240
actcctggag agaagggaga gaaaggagat gcaggtcttc ttggtcctaa gggtgagaca 300
ggagatgttg gaatgacagg agctgaaggg ccacggggct tccccggaac ccctggcagg 360
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<211> 408
<212> DNA
<213> Mus musculus

<220>

<221> unsure
<222> (97)

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ctgttagctt ccctcgcttg tgctgcgcgt cgatgcggcg ctggcctcct cccagcaacg 180
ctgcatggcg cttgttgtcg atgcgctctt taactgaaac cggctggctg caaaggccgc 240
gggtcgtgat gccgaggccg caattcagaa cggtgagcct cgctccagcc gccaccgccc 300
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ctcccctccg ggaaacttat ttttatcagc agccattacc ttgtcgag 408

<210> 754
<211> 431
<212> DNA
<213> Mus musculus

<400> 754
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acctccctgc tccgcacatc atgccagggg tcggtttgcc agagctcggg agcccgggtt 180
tgccacctct tccctccttg cctccccgaa acttacctgg cattgcacct ctccccatgc 240
tgtccgactt cctcccgtca ttccctttgg ttccagaggg ctcttctgca gccagcgcag 300
gggagccgct gtcttcccct cctgccatgg gcccaccttc tgaccctgtc atgactactg 360
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ccctagtcga g 431

<210> 755
<211> 441
<212> DNA
<213> Mus musculus

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gccccaggga aacaaagccc cggctgcagg aagaaccggg gaacctctaa gtctggaaag 420
aaaggaaagg gcaaggtcga g 441

<210> 756
<211> 658
<212> DNA
<213> Mus musculus

<400> 756
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ggcagtggat cgggaagcac cggcggccgc gtaccgtgtc tttccaagcg aaggagagca 360
tgatccgtcg cctggaggtg gaggccgaga accactactg gctcagcatg ccctacatga 420
cagcagagca ggagtgcggc cacgccgcgg agcgacgggc ccaggctttt gaagccatca 480

aggcagcggc cacttccaag ttccttaagc atagatacat tgcagaccag ctagaccatc 540
tcaacatctc gaagaaatgg tcctaaccct tcaagattat ggataccgga ctgctctatc 600
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<211> 265
<212> DNA
<213> Mus musculus

<400> 757
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cactgtaggt atggacaggg aagaaaggaa gaccatcaat cagggtcaag aagatgaaat 120
ggagatttat ggttacaatt tgagtcgctg gaagcttgcc atagtttctt taggagtgat 180
ttgctctggt gggtttctcc tcctcctcct ctattggatg cctgagtggc gggtgaaagc 240
gacctgtgtc agagcagaag tcgag 265

<210> 758
<211> 354
<212> DNA
<213> Mus musculus

<400> 758
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tggattttga tgctgctctc aacaatacca ggccccgggt tcacagcagg tgcccaggga 120
agctgttccc tgcgctgcgg ggcacaggat ggactctgtt cctgtcaccc aacctgctcg 180
ggccttggca cctgttgtga agattttctg gactactgcc tagagatttt accctcctca 240
gggtccatga tgggtggcaa agacttcgtg gtgcaacatt taaagtggac tgaccctact 300
gatggggtca tttgcaggtt taaggagagt atccaaaccc ttggctatgt cgag 354

<210> 759
<211> 350
<212> DNA
<213> Mus musculus

<400> 759
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gctctaaggt gggagttata aaggaggtga atgtgagccc atgtcccacc gatccctgtc 180
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ctgagcctga cggttgtaag agtggaatca actgcccccc agaagtcgag 350

<210> 760
<211> 392
<212> DNA
<213> Mus musculus

<400> 760
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agtgggacag atcattcagg actacgacag tgataagatg ttccctgctc tgggatttgg 180
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taaccctttc tgctcaggcg tggatggcat cgcccaggcg tactcagcct gtctgcccca 300
cattcgcttc tatggcccca caaacttctc cccgatcgtc aaccatgtgg cccggtttgc 360
agcccaggcc acccagcagc agaacagtcg ag 392

<210> 761
<211> 332
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (5)..(8)

<400> 761
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actgggcagg gaaagcagag gcccaggatg cattggggga ggcaactgac gaccccagct 180
tctgcagccg ccacaggagg gggaaagagt gcttgccttt gcacccaaac aaggcccatg 240
gctgcaaaca gccccttcca tcaaatccaa gagtgtcatc tgaactgtca caaataacag 300
ttgatcatga agagcagagt gaccatcaca ga 332

<210> 762
<211> 372
<212> DNA
<213> Mus musculus

<400> 762
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ctccaacagt gtcttccctc cctttctccc ttcctcttcc tcctgtgccc ctccctgaaa 120
gggctcaacc ttgcgtgcct gtcctgttct aactgtcccc agtcacatat cccatgtgca 180
acactgacca cacagtgtct gtcaccacgg ccagcactgc agctcgcccc agcacaagcc 240
cccctggctg gcttggacct gagtgtttgc tcccttcctg ccactcctgg aatctgcaat 300
gtggcgccat cttgcttgta tgcagggcac ccgtttttgt gcatttcgct ttgttttccc 360
ggagtggtcg ag 372

<210> 763
<211> 387
<212> DNA
<213> Mus musculus

<400> 763
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gagggagagc cggaggtgac agatcagctc gagtggcaaa gcaaccaacc ctgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccaggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgatgga ggacactatg 300
acggaagtaa aggcttacaa aaaggagctg gaggaacagc tgggtccagt ggcggaggag 360
acacgggcca ggctgggcaa agtcgag 387

<210> 764
<211> 467
<212> DNA
<213> Mus musculus

<400> 764
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taatgaaaaa cctcactcag agcgaacagt tgaaagcctg tcatggagcc ggatcctccc 120
ccgtgacctt gagctcagga gagggccaag aagtagatat cctgcagatg ctcaccaagg 180
ccaaggatga gtacaccaag tgtaagacct gttccgagcc aaaacagatg accaattcct 240
ctgccatctg tgacaaccct aaacttatca aacctgtccc cgtgagaccc agcagcagcc 300
agaggctgca aggacccgcg cccagcaaga cctcggaccc tgagcctcag cacttatctt 360
taacagcact atttgggaaa caagacaaag ctccctgtca ggaaactgta aagccctccc 420
ggacctttgc ccaccaccac caccatcacc accagcagct tgtcgag 467

<210> 765
<211> 487
<212> DNA
<213> Mus musculus

<400> 765
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attacagaga aactttcagc tcatgaggga cctagaccaa aggacagagg acctgaaggc 120
tgaaattgac aagttggcca ctgaatatat gagtagcgcc cgcagcctga gctccgagga 180
gaagctggcc cttctcagac agatccagga ggcctatggc aagtgcaagg aatttggtga 240
cgacaaggtg cagctggcca tgcagaccta tgagatggta gacaaacaca ttcggcggct 300
ggacacagac ctggcccgtt ttgaggctga tctgaaggag aaacagatcg agtccagtga 360
ctatgacagc tcttctagca aaggcaaaaa gagccggacc caaaaggaga aaaaagctgc 420
cagagcccgt tccaaaggga aaaactcaga tgaagaagcc cccaaggctg cccagaagag 480
agtcgag 487

<210> 766
<211> 382
<212> DNA
<213> Mus musculus

<400> 766
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ggtgacagat cagctcgagt ggcaaagcaa ccaaccctgg gagcaggccc tgaaccgctt 180
ctgggattac ctgcgctggg tgcagacgct gtctgaccag gtccaggaag agctgcagag 240
ctcccaagtc acacaagaac tgacggcact gatggaggac actatgacgg aagtaaaggc 300
ttacaaaaag gagctggagg aacagctggg tccagtggcg gaggagacac gggccaggct 360
gggcaaagag gtgcaagtcg ag 382

<210> 767
<211> 508
<212> DNA
<213> Mus musculus

<400> 767
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caactcaacc acaatcatgg ctcagatgat gactctgagc ctccttagcc tggtcctggc 120
tctctgcatc ccctggaccc aaggcagtga tggagggggt caggactgct gccttaagta 180
cagccagaag aaaattccct acagtattgt ccgaggctat aggaagcaag aaccaagttt 240
aggctgtccc atcccggcaa tcctgttctc accccggaag cactctaagc ctgagctatg 300
tgcaaacccct gaggaaggct gggtgcagaa cctgatgcgc cgcctggacc agcctccagc 360
cccagggaaa caaagccccg gctgcaggaa gaaccgggga actctaacta agtctggaaa 420
gaaaggaaag ggcaaggtcg aggttctccc tatagtgagt cgtattaatt tcagaggagt 480
atttagaaga gaagctgaag ctgtcgag 508

<210> 768
<211> 297
<212> DNA
<213> Mus musculus

<400> 768
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gcgaagatga aggctctgtg ggccgtgctg ttggtcacat tgctgacagg atgcctagcc 120
gagggagagc cggaggtgac agatcagctc gagtggcaaa gcaaccaacc ctgggagcag 180
gccctgaacc gcttctggga ttacctgcgc tgggtgcaga cgctgtctga ccaggtccag 240
gaagagctgc agagctccca agtcacacaa gaactgacgg cactgaagga ggtcgag 297

<210> 769
<211> 310
<212> DNA
<213> Mus musculus

<220>
<221> unsure

<222> (65)

<220>
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<222> (82)

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<222> (298)

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<220>
<221> unsure
<222> (306)

<400> 769
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tataaaggag gtgaatgtga gcccatgtcc caccnatccc tgtcagctgc acaaaggcca 180
ntcctacagt gtcaacatca cctttaccan cggcactcag tcccanaaaa gcacggcctt 240
ggtccaccgg catcctggaa aggatncggg tccccttccc tattcctgaa acctgacngt 300
tgtnanaatg 310

<210> 770
<211> 512
<212> DNA
<213> Homo sapiens

<400> 770
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ttaatttaga ttaaaacact tactcttttt aataaagtta taaaattaat tattaaaatt 120
gcctattgaa gattaaaggc agtggaacgt ttattttcct tacaaaacaa ttttgtcttc 180
aataagtgtg attgtgttaa tcaattatgc tattaaaaat acaactgcgc ctggcctatg 240

gcatctgtct tctaagggac ctccctgctt cagcctttac agagtatctt tctagcctcg 300
tctctggctc tgttcacggc cctctacaga gcatgcctct gcctttgttc tttgaggagc 360
gtgtagcctc cttcctcccc acctcaaaca tctgcgcagt tcccatttac ctctcagcct 420
gggccagtgc acagcatcaa caagctttct ctgagaaggc agaaccagct atttcttggt 480
ctgtgttctc atcatactct acacaactcg ag 512

<210> 771
<211> 624
<212> DNA
<213> Homo sapiens

<400> 771
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agtcctcctg tctcagcctc ccgagtagat aagactacag gcacaggttg gtgttgacct 120
cctagcctca agcagcctcc caaagtgctg agattacagg tgtgagccac tatacccagc 180
ccagtgttat atttttgtat aatcctatga agtatcaagg cagttattat ccctgtttta 240
ctgctaagaa acttgaagtt tacagaggta aattatttgc ctaagcctaa actctgatct 300
cgaatctgaa tcccaagtcc aatattcttt tcaccgtatt acaatatttt taccatcaac 360
cctccattct gtctgcacat catacaaatg agtatctcta cagagctttg agttgctttt 420
aaacaaaaga gatttttgta cccaatgttt agagtagtga ttctcggctc catttttaca 480
agatttcaag atttaatttg tcaaaaaagt tctgaaattt tcaaagcaaa agcaatttta 540
atttaattgc tctaaaaaat aagcagattt atcatttagc aattctttaa gggagagtgt 600
atcataaaac tgaaatagct cgag 624

<210> 772
<211> 418
<212> DNA
<213> Homo sapiens

<400> 772
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cagcacttca gtagcatttg cattcctggt taaagaatca ccaatattta aaataaaaac 120
tttcctgaaa ttgggactgt catgttatcc agaagggctg gtacatccgc ccaccatgtc 180
cccctgctgg gtcaggagcc aacacaggac cctgcgtgtg agcgtgcctg acatctcacg 240
cacggccact ccagagccgg tccctgtcct tggaaagctg tgaagccttg cgttgagttc 300
cttctcgata ctgacggctc cgtgctgaca ttctgagctc tggagtcaca ccagcgcagg 360
ggcgtggagg aactgaggtt tggaaggaat gccaggtctc gcacagcttg gcctcgag 418

<210> 773
<211> 197
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (40)

<400> 773
gaattcgcgg ccgcgtcgac catacaagca ccctggcagn tatgaagttg atgacagctt 60
tggtgaatgt ggcactaaat cttagcatta atatggataa tacacaaaga caatatgaag 120
cagaacggaa taaaatgatt ggaaaacgag ccaatgagag gctagaactc ctgctacaaa 180
agcggaaaaa gctcgag 197

<210> 774
<211> 626
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (46)

<220>
<221> unsure
<222> (66)

<220>
<221> unsure
<222> (68)

<220>
<221> unsure
<222> (93)

<400> 774
gaattcgcgg ccgcgtcgac tggaattcta gaccagcctc gagaanctag tatcccaccc 60
ttggtncngc ctgtcgccaa tgtgcctgct gtncagcaga cactaattca tagtcagcct 120
caaccagctt tgcttcccaa ccagccccat actcattgtc ctgaagtaga ttctgataca 180
caacccaaag ctcctggaat tgatgacata aagactctag aagaaaagct gcggtctctg 240
ttcagtgaac acagctcatc tggagctcag catgcctctg tctcactgga gacctcacta 300
gtcatagaga gcactgtcac accaggcatc ccaactactg ctgttgcacc aagcaaactc 360
ctgacttcta ccacaagtac ttgcttacca ccaaccaatt taccactagg aacagttgct 420
ttgccagtta caccagtggt cacacctggg caagtttcta ccccagtcag cactactaca 480
tcaggagtga aacctggaac tgctccctcc aagccacctc taactaaggc tccggtgctg 540
ccagtgggta ctgaacttcc agcaggtact ctacccagcg agcagctgcc accttttcca 600
ggaccttctc taacccaagt ctcgag 626

<210> 775
<211> 233
<212> DNA
<213> Homo sapiens

<400> 775
gaattcgcgg ccgcgtcgac aaaataaaaa taaaaataat aataaaaacc agtcctaaac 60
caaattctta ctttagtctc tagcctcaga gtttattagt tcttagtaat gttactatga 120
aggcaaatag gagacaaatt attattctgg tttttattgt tactgccact gcaattccta 180
tgattattgc tataattccc tatttaatag gtaaacaagt tacaacactc gag 233

<210> 776
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (71)

<220>
<221> unsure
<222> (97)

<400> 776
gaattcgcgg ccgcgtcgac tgctagttgt acttgtagtt ttttgaggac cctccatact 60
gttttccata ntggctatac tactttactg atctttntct ttttctctaa tttaaacaac 120
tgtcacaaag tcagtttgac ttattgaact tgtataactt ctgtgcctca ataaaactga 180
atgttacagt aaggaattag gtgaaattta cttttttttt ttttttttc aggaagactt 240
acttagttag gtagctagta gaatagtaac ctgaactcaa gaaatgtaat ttcatcctga 300
taaaactgct gagtagggct atcttcctaa ttttcattaa atatttctta cttggaaaca 360
ttgaatatta aatgagacaa aaactgtaag actaacagca aactcgag 408

<210> 777
<211> 156
<212> DNA
<213> Homo sapiens

<400> 777
gaattcggcc aaagaggcct accacactga aattatttgc caatgaatcc caaagatttg 60
gtacaaatag tacaattcgt atttgctttc ctctttcctt tcttcagaca aacaccaaat 120
aaaatgcagg tgaaagagat gaaccactcc ctcgag 156

<210> 778
<211> 535
<212> DNA
<213> Homo sapiens

<400> 778
gaattcggcc aaagaggcct aagaaaaacg ccaacttttc agacaaattt tccctccacc 60
agaatcactc cggtagagac acagagaaca gacttcttgt actcccacga tgaatgagcc 120
ggaggtcact tactcaactg tgagacttca taagtcttca gggttgcaga aattagtaag 180
gcatgaggag actcaagggc ccagagaagc tggcaacaga aagtgttcag tatcctggca 240
actcattgtg aaagctcttg gaatcctctg tttccttctt ctggtaatag ttgcagtgtt 300
gacgataaag atttttcagt atagtcaaca caaacaagaa atcaatgaaa ctctcaacca 360
ctaccataac tgcagcaaca tgcaaagtga tttcaactta aaggaagaaa tgttgacaaa 420
taagtctata gattgtaggc caagcaatga acttctggat tacatcaaaa gagaacagga 480
cagatggaac agtgaaacca agacggtttt agattcctca cgggacaatc tcgag 535

<210> 779
<211> 123
<212> DNA
<213> Homo sapiens

<400> 779
gaattcgcgg ccgcgtcgac gcaggcattc tctcattccc attttacaga gaggaaactg 60
agactcaaag gactgactct aaagcccaag ctcctgacca tgagaccata cttctttctc 120
gag 123

<210> 780
<211> 436
<212> DNA
<213> Homo sapiens

<400> 780
gaattcgcgg ccgcgtcgac cgggtagttg gagaaaaaaa ttgcaaagaa gatagttcca 60
caaaagtgag aagaagaact caagtgggga aaaaaaagta gacttttcaa ggaaagagga 120
aaggaagaaa aggaattgca tgtaaataat agagatgagg atgaatcaga gtgacttcct 180
aaatatatgc tgcataggaa gaaaaatgtg gccaagagga atggtgggac ctgaaagaga 240
tgtggaggag ggtgagagga agggactgtg tggaaggcag agctccgaaa cacagccgga 300
aaacagctgc ttgtattcca gctacagcat ggaaatgcac gcgggcctct ccgctgctcc 360
tcaccagccc gcaccctaca cagaggcttc tgttcattca ttagttcatt cactcatgga 420
tcctcttccc ctcgag 436

<210> 781
<211> 651
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (49)

<400> 781
gaatttcagt agtttcactt ttcaaaatta aacaaatttt taattttant taattctgtt 60
gttatttctt cagagtgttt ctctctgtca cttaggctag agtgcagtgg catgatcttg 120
gctcactgca acctccacct cccaggttca agcgattctc ctgcctcagc ctcccttgta 180
gctgggatta caggtgcctg ccaccacgcc tggctaattt ttgtattttt agtagagatg 240
gggtttcacc atgttggcca ggctggtctc gaactcctgg ccttgtgatc cacccgcctc 300
ccaaagtgct gggagtacag gcgtgagtca ccatgcccgg ccttcttctt ttattttttt 360
ttaaagtaga ggttgcaaac tgacagcctt tggaaagaat acagcctaca aatacttttg 420
tttggcttgc acagtatttg tttattgttt ttacacacga agaagttgcg agcatttaaa 480
acactggcac tttaaataaa gttttaaatt tttggcttct tttggaaaat ggaaaggttg 540
ctcctctctg ggtcagcatt cctcttggtg gcagttagct gcagctgggt tgaagctgct 600
cctttagcca ggcttgtggg ctccagtttg ccacagcctc caccactcga g 651

<210> 782
<211> 384
<212> DNA
<213> Homo sapiens

<400> 782
gaattcgcgg ccgcgtcgac aaaataattc agatgagcta gtttctagtt tgccctataa 60
tttttagaag ttacatgcta actcaccctg tattatggtc agaaatctga actgtgggag 120
atactgggtt ttgaccccac gtaattttcc acttaacctt tattcacaga gtactgaacc 180
taggcttttc tcatcaagaa tctctcaagg gtttaaaatg acagtgtata gtttttgtaa 240
aggcaggtta aatcttgatt ttaatgtagg cttttgacat gtattatttt cttcattgtt 300
tttaactctt gaactttatg agttaggatt ccctgacaaa tatacgctaa taaatgtctt 360
agtaccgata tgaacaatct cgag 384

<210> 783
<211> 165
<212> DNA
<213> Homo sapiens

<400> 783
gaattcgcgg ccgcgtcgac tggcaaaggg ggtggtagat tctggcaaaa aagttttggc 60
atctgacacc catcagatct gctggctgac cgaattatac attctgtgga tagagagttc 120
tcaaagtaac attgatccat gatattttgt tgctggatgc tcgag 165

<210> 784
<211> 457
<212> DNA
<213> Homo sapiens

<400> 784
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagctat 60
ccacctgcct gtctacacct tcctccttcc atccatccac tcacctgtct acaccttcct 120
ccttccatcc gcctgtctac actttcctcc ttccatccac ccacccatct ataccttcct 180
ccttctgtcc acctgcccat ctacgccttc ctccatccat ccacccgcct gtctacgcct 240
ttctccttcc atccacccac ccatctatac tttcctcctt ccatccacct gcctgtctac 300
atcttcctcc ttccatccac ctgcctgtct acaccttcct ccttccgtcc atccacacat 360
gcatctgttc ttccaatcat ccttctggct gttgttatca ccttggccat ctacggcacc 420
cggaagttca agaagaaagc ataacaggca actcgag 457

<210> 785
<211> 437
<212> DNA
<213> Homo sapiens

<400> 785
gaattcggcc aaagaggcct acgagggcga cggaggaact ttcgcgagca aaagatccgt 60
ggccgagatc caggagagag cagcggtaga atgaggccgg cgtgattctg aactgtaaac 120

ccagaagagg cgtggctgtg gcggagggag gagtcgtgag gggtagtact aacctcggga 180
ggcgcgattc gggatcctaa tcggatattt cattttggtt tatctcttag ttttgtcaaa 240
aaattttatc tgagtttata ttaaattaac tcattatcag aagattatta aataaagata 300
tagaaaaata catcagaaat ttcctgacgg gagttaaaaa ttagcatcct ccatttctct 360
ttacagagtt actgcattta aaattatttg tttgttcagt tatttacctg ctcatgttgt 420
tcgctgttgt actcgag 437

<210> 786
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<220>
<221> unsure
<222> (82)

<400> 786
gaattcggcc aaagangcct ataggcctct ttggccgaat tcggccaaag aggcctacta 60
tttgtgtatc tttttgcttg tnttctgttg ggatagtctt ggactttttc aaatttcatg 120
aatcagggag gggacaacag gtagaatagg cctcctgagt cccttacctg ttctttttcc 180
tttttctag tctggttttt cttctcctta tcattttctt gttctttttc attttcctat 240
gctgctgctt ctatttcttc tatgtgttgt tgtttctcct tctcctccct ttgtattatt 300
tatcccaagc aatagcctta acaaacaacc atccaaaact gagttaaaaa tagactactt 360
gtcagtgtgt tgtactcccc cctcctccct gccgcccg 398

<210> 787
<211> 200
<212> DNA
<213> Homo sapiens

<400> 787
gaattcggcc aaagaggcct agagactgga ggccagtgga gcattttgag cagagccgtg 60
tcatggaaag actcattttt tcagtggtta ctttgacttc tgtgtggaga acagactgga 120
gtggagctgg agtagagaga ggagactggt taggagcatt gccacagtcc aggcatgaga 180
cgatggtgtc tggcctcgag 200

<210> 788
<211> 199
<212> DNA
<213> Homo sapiens

<400> 788
gaattcgacc aaagaggcct agtcgattga attctagacc tgcctcgagc aacccgctat 60
tagtactttg gctaataaat tggatcccat tttgtttgct aaataaaggt tcagtgtgga 120
cttactttcc tctttacttt gaaaatctga atatagttcc caaatgaatt taaagtacat 180
tcaagcaacc atactcgag 199

<210> 789
<211> 258
<212> DNA
<213> Homo sapiens

<400> 789
gaattcggcc aaagaggcct acggtatgtt aaaactatgt taaattctgc tttgctattt 60
tgttgtgtga taaaaagact tctaaattgg aagtcaggaa ggatggacct cagccatgag 120
ctgccctggc aggctgtgct tatcacaaca gttggtattg cccttactgc aacaaatggg 180

gaagtagatt tgactgcaca ttttaacaaa aatcttgaga ataccaggaa aacaactagc 240
atgaagggaa gtctcgag 258

<210> 790
<211> 223
<212> DNA
<213> Homo sapiens

<400> 790
gaattcggcc aaagaggcct acgagtatct ggagttgagc tctgtattga catctaatct 60
gcatttctcc tctactgggg tgaacactgt ctcgtcactg ggtataacag cattactact 120
attgctgcta cagccaaagc tgtcatcaca tttggaacta ctgttcagat caagtgtcat 180
gctatttttt gagggatctc cctgtttact tgtattactc gag 223

<210> 791
<211> 281
<212> DNA
<213> Homo sapiens

<400> 791
gaattcggcc aaagaggcct agatataagt tagctgccct gaaaccctcc acaggatttt 60
caaaggactg ctagtgttcc atctgaagac ggaaagacac attccctgca acattttctg 120
cacagtgagc tgccccaaac aagctgccct gttgcaaatc acctttcagt acagcatatt 180
ttttctcaaa cgctgcatat ttattaagca caccattttt ccrgcgtatg gaattctgtt 240
ctctctcaat gttaatcttt aatgtacaag ccatactcga g 281

<210> 792
<211> 134
<212> DNA
<213> Homo sapiens

<400> 792
gaattcggcc aaagaggcct agggaagaag aaaattctgt attggttttg actaacaaca 60
agctgccgga agatctcttt ttctccatgt tactgagagg tgacagtgtg ctggcagtcc 120
tcacagccct cgag 134

<210> 793
<211> 165
<212> DNA
<213> Homo sapiens

<400> 793
gaattcggcc aaagaggcct acagaagatc ccacaggaga agatgcacat gactcccttc 60
tttgtagcat tttctagttc ccccgcaccg tcagtggtat tatctccctc gtgcagccct 120
ggcatatctg ccccacatct gagaggcatg cgcacgcccc tcgag 165

<210> 794
<211> 305
<212> DNA
<213> Homo sapiens

<400> 794
gaattcggcc aaagaggcct acgagcacag cccgcacccc ttgtacctgc accactccca 60
cccaaatgtg ccttctactt ataaatagaa caagaagtaa atatatatgc ttagctatct 120
taggagttag atcttggatg ttttaaagtc cagctgggtc agacaacatg ttacttgctc 180
cctatgtgat atggtttgga tatttgtcct ctctaaattt catcttgaaa tctgaccccc 240
cagtgttgga ggtgggatct agtgggaggt ggtgggtgat gggggcagct cccactacac 300
tcgag 305

<210> 795

<211> 182
<212> DNA
<213> Homo sapiens

<400> 795
gaattcggcc aaagaggcct aagggtcatc ctaattatat ttgtacaagg aattgtgtaa 60
gcatagaaac tatgaaaaac ataattttga ttacattatt tatatatttt tgtaatatga 120
gtagttccaa gatcagagtt atggccacac attgctcgag caggtctaga attcaatcga 180
cg 182

<210> 796
<211> 436
<212> DNA
<213> Homo sapiens

<400> 796
gaattcggcc aaagaggcct aaaaatacaa cagattctca gagactattt tttttggggg 60
ggtttggggg cgggtgggga cggagttctg ctcttgtccc ccagcctgga gtgcaatggc 120
acaatctagg ctcactgtaa cctccgtctc ccaggtacaa gtgattcctc agagactatt 180
attaggaaca cttcaagcac acaactagaa aatctagagg caatggacaa attcctgaaa 240
acatacaacc tcgcatgttt gaatcaggaa gaaactgaaa ccctgaacag atgaataatg 300
aattctgaaa ctgaatcagt aataaaaaaa caacaaccaa aaagctctgg accagacaga 360
tccacagctg aattctacca gatgtgcaaa gagcctgtac caatcctact gatactattc 420
ccccaacaac ctcgag 436

<210> 797
<211> 249
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (96)

<400> 797
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagaccat gcctggccct 60
tttgtgtttt tttttaaatt attatttttt tttctngagg caggctctgc tctgtcacct 120
aggctggaat gcagtggctc gatttcaggt tactgcatcc gaaaccttct gggctcaagc 180
agtcctccca gtctcagctt cccaagtagc tgggactaca ggcgcatgcc accattccca 240
actctcgag 249

<210> 798
<211> 313
<212> DNA
<213> Homo sapiens

<400> 798
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctaggactac 60
tgctcacgtg ccccgcccac catattgaac tgccttgtac actatcacca aactcaaatt 120
gaccaaccca taataaatgt tatctattgt gctatttgcc atgctctgta ccagccctga 180
gccagaccca ttccataaac tccattcatc cccatccaac tttcttcact ttactgagcc 240
atgccttgta gcagcagcca cccatctcag ttctgccaca gccagctcca ctccctcacc 300
cccgagtctc gag 313

<210> 799
<211> 263
<212> DNA
<213> Homo sapiens

<400> 799

gaattcgcgg ccgcgtcgac ttcagttcta atagtttttt tgtgaagtct ttaggttttt 60
ccaaatataa gatcatatca tctgtaaaca aaaataattt gacttactcc tttctgcttt 120
ggatgtcctt tatttctttc tcctgtctga ttgctctagc taggactgcc agttctgtgt 180
tgaatagcag tggtgatagt gggcattctt gctgtattcc agatcttaga agaaagactt 240
tcagttttcc cccatgtctc gag 263

<210> 800
<211> 331
<212> DNA
<213> Homo sapiens

<400> 800
gaattcgcgg ccgcgtcgac ccaaacagcc cgggaccatg ctgtcgctcc gctccttgct 60
tccacacctg ggactgttcc tgtgcctggc tctgcactta tccccctccc tctctgccag 120
tgataatggg tcctgcgtgg tccttgataa catctacacc tccgacatct tggaaatcag 180
cactatggct aacgtctctg gtggggatgt aacctataca gtgacggtcc ccgtgaacga 240
ttcagtcagt gccgtgatcc tgaaagcagt gaaggaggac gacagcccag tggcacctg 300
gagtggaaca tatgagaagt gcaaactcga g 331

<210> 801
<211> 296
<212> DNA
<213> Homo sapiens

<400> 801
gaattcgcgg ccgcgtcgac ctgcccacta agaagatgaa gccttttcat actgccctct 60
ccttcctcat tcttacaact gctcttggaa tctgggccca gatcacacat gcaacagaga 120
caaaagaagt ccagagcagt ctgaaggcac agcaagggct tgaaattgaa atgtttcaca 180
tgggctttca agactcttca gattgctgcc tgtcctataa ctcacggatt cagtgttcaa 240
gatttatagg ttattttccc accagtggtg ggtgtaccag gccgggcgtg ctcgag 296

<210> 802
<211> 152
<212> DNA
<213> Homo sapiens

<400> 802
gaattcgcgg ccgcgtcgac gggaccattt gcttcttttc tttctcgaat aaaatgtttg 60
taatactcat tgtaacagcg actgtggcat ggggcctgtc ttctgtagag cttttgtgct 120
gtgcttgttt ccacggcagc cagcaactcg ag 152

<210> 803
<211> 678
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (66)

<220>
<221> unsure
<222> (172)

<400> 803
gaattcgcgg ccgcgtcgac atccaggatg tggtggtcct tgatccttct ttcttgcctg 60
ctggcnctga ccagtgccca tgacaagcct tccttccacc cgctgtcgga tgacctgatt 120
aactatatca acaaaccgaa tacaacatgg caggctggac gcaacttcta cnatgttgac 180
ataagctatc tgaagaagct gtgtggcact gtcctgggtg gacccaaact gccaggaagg 240
gttgcgttcg gtgaggacat agatctacct gaaacctttg atgcacggga acaatggtcc 300

aactgcccga ccattggaca gattagagac cagggctcct gcggctcttg ttgggcattt 360
ggggcagtgg aagccatttc tgaccgaacc tgcattcaca ccaatggccg agtcaacgtg 420
gaggtgtctg ctgaagacct gcttacttgc tgtggtatcc agtgtgggga cggctgtaat 480
ggtggctatc cctctggagc atggagcttc tggacaaaaa aaggcctggt ttcaggtgga 540
gtctacaatt ctcatgtagg ctgcttacca tacaccatcc ctccctgcga gcaccatgtc 600
aatggctccc gtcccccatg cactggagaa ggagatactc ccaggtgcaa caagagctgt 660
gaagctggct atctcgag 678

<210> 804
<211> 204
<212> DNA
<213> Homo sapiens

<400> 804
gaattcgcgg ccgcgtcgac gtcctttatg aattctattt tctcattctt ccgggcatgg 60
gctttctgta gcctcactat cctctcaatc agcatggctt tgtccacttc tgggaagttg 120
tccacagcca ccgaggagct ggtattctct ggagatcggt cttcagcact gattcgagca 180
ttaagtgacc ctgatgaact cgag 204

<210> 805
<211> 284
<212> DNA
<213> Homo sapiens

<400> 805
gaattcgcgg ccgcgtcgac gcagactgtc ctgaactcat ctctcaaagc tgctacagag 60
cccaggaaga tttcaggatg aagagcttcc tcctcttcct cactatcatt cttctggttg 120
tgattcagat acaaacagga tccttgggac aagccactac ggccgcttct ggtactaaca 180
aaaacagcac ctccaccaaa aaaacccccct taaagagtgg ggcctcatcc atcatcgatg 240
cgggtgcctg cagtttcctc ttctttgcca ataccgaact cgag 284

<210> 806
<211> 290
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (107)

<400> 806
gaattcgcgg ccgcgtcgac atcatggcta ccctgcgtgt cccactcctg gtggctctcg 60
tccttcttgc tgtggcaatt cagacctctg atgcaggtcc ctatggngcc aatgtggaag 120
acagtatctg ctgccaggac tacatccgtc accctctgcc atcacgttta gtgaaggagt 180
tcttctggac ctcaaaatcc tgccgcaagc ctggcgttgt tttgataacc gtcaagaacc 240
gagatatctg tgccgatccc aggcaggtct gggtgaagaa gctactcgag 290

<210> 807
<211> 885
<212> DNA
<213> Homo sapiens

<400> 807
gaattcgcgg ccgcgtcgac tcatcatgga gctctcgcgg cggatctgtc tcgtgcgact 60
gtggctgctg ctcctatcgt tcttactggg cttcagcgcg ggatctgcca tcgactggcg 120
ggaacccgaa ggcaaggaag tatgggatta tgtgactgtc cgaaaggatg cccacatgtt 180
ctggtggctc tattatgcca ccaacccttg caagaacttt tcagagctgc ccctggtcat 240
gtggcttcag ggtggtccgg gtggttctag cactggattt ggaaactttg aagaaatcgg 300
ccctcttgac acccaactca agcctcgaaa tactacctgg ctgcagtggg ccagtctcct 360
gtttgtggat aatcccgtgg gcacgggctt cagctatgtc aacacaacag atgcctacgc 420

aaaggacctg gacacggtgg cttccgacat gatggttctc ctgaaatcct tctttgattg 480
ccataaagaa ttccagacgg tccattctac atttctcag aatcctacgg aggaaagatg 540
gctgctggca tcagtgtaga actttacaag gctgttcagc aagggaccat taagtgcaac 600
ttttctgggg ttgctttggg tgactcctgg atctcccccg tggattcagt gctgtcctgg 660
ggaccttacc tgtatagtat gtctctcctt gataatcaag gcttggccga ggtgtccgac 720
attgcagagc aagtccttga tgctgtaaac aagggcttct acaaggaggc cactcagctg 780
tgggggaaag cagaaatgat cattgaaaag aacaccgacg ggtaaactt ctataacatc 840
ttaactaaaa gcagcccgga gaaagctatg gaatcgagcc tcgag 885

<210> 808
<211> 275
<212> DNA
<213> Homo sapiens

<400> 808
gaattcgcgg ccgcgtcgac ctcaccatga tcgccatgct cacagtgctg ctataccttg 60
gtcttattct ggaacccagg actgcagtac aggcaggaca cctcccaaag cccatcatct 120
gggctgagcc aggctctgtg atcgctgcgt atacatctgt gattacctgg tgtcagggtt 180
cctgggaggc ccagtattat catctgtata aagagaaaag tgtaaatcct tgggacactc 240
aagtccctct ggaaaccagg aataaggccc tcgag 275

<210> 809
<211> 584
<212> DNA
<213> Homo sapiens

<400> 809
gaattcggcc aaagaggcct actcttttgc ataacacatg tctacaatga ttcttaagtg 60
cctcctggcc ttccccttgc tgcccagcct tctcttccca agttttccat cttgttcttt 120
tcactcttcc tcacgagaaa tgcctcccac tcccttcact atgctgacca gttctggata 180
cccacaagct tatccttttt gggggtcccc agtcactgcc tgtagttgtg caccagtgca 240
tgtgttagag gggcattca tgggatcctg tgggcactga cgatacccgt agccactgcc 300
caagagtgag cttcttcccc gccagagcct cacgggcccc taaattccct gtcgaccatg 360
gtgttcatca ggaagtgggg ccaggaggga gccctctggt aatctgtcag ttattagaga 420
acctcctgaa tctggggagc tggggttggt ggcttcctga agttgtaatt atttaacttt 480
gtattttgaa tagttttaga cttacagaaa agttgtaaga atagtataaa gaatttccta 540
catccttcac ccaaattttc caaatgttaa catttggct cgag 584

<210> 810
<211> 600
<212> DNA
<213> Homo sapiens

<400> 810
gaattcgcgg ccgcgtcgac tgggagtgct gctttgggaa acatgaatct cctattcaga 60
ctagcagttt tccttagcct gtggtgttgt tccgatgctc agggacaaac aaaagaagaa 120
agcactgagg aagtgaaaat agaagttttg caccgtccag aaaactgctc caaaacaagc 180
aggaaaggag acttgctaaa tgcccattac gatggctact tggctaaaga cggctccaaa 240
ttctactgca gccggacaca agatgaaggc caccccaaat ggtttgttct tggtgtcgga 300
catgtcataa aggggctgga cattgctatg atggacatgt gccctgggga aaagagaaag 360
gtgattatac cgccttcgtt tgcatatgga aaagaaggct acgcagaagg caagattcca 420
cccaatgcaa ctctgatgtt tgagattgaa ctttatgctg tgaccaaagg accaaggagc 480
attgaaacat ttaagcaaat agacacggat aatgaccggc aactctccaa agctgagata 540
gagctttact tacagaagga ctttgaaaaa gatgcaaacc cccgtgacaa gatactcgag 600

<210> 811
<211> 124
<212> DNA
<213> Homo sapiens

<400> 811
gaattcgcgg ccgcgtcgac tgaagacttt gtgtggctgc atgacactct tactgaaaca 60
acggattatg ctggccttat tatccctcct gctcctacaa agccagactt tgatggccct 120
cgag 124

<210> 812
<211> 479
<212> DNA
<213> Homo sapiens

<400> 812
gaattcggcc aaagaggcct accttcattg actctctttt cggactcagc ccgcctgcac 60
ccaggtgaaa taaacagcca tgttgctcac acaaagcctg tttggtgttc tcttcacacg 120
gacgcgcatg aaacatatat ctagtttatt tttctcacct atcattcacc tgaatttctt 180
taaaaaattt taaccctttg ttaaccacat ttagactgtt tctcttttta tttgtaagat 240
ataaatttta taagaggttt gtttcaaggg gattctttgt ttatagagca tcaacaatgt 300
tcaacacaca tctttcagtc accgtattgt ttagtgatat gtttttgct attccaaatg 360
ggattttatt cctattactt ttcatcatga aattcacatc atatggattg gggtccccaa 420
ccccctggcc acagacaggt actggtctga ggcctgttag gaactgggct acactcgag 479

<210> 813
<211> 560
<212> DNA
<213> Homo sapiens

<400> 813
gaattcggcc aaagaggcct agaggaatga tcatcgtcct gctcatctgc attgtctggt 60
ttcctcttct cttcatgtct ttgatcaaat ctgtggctgg ggtcatcaac cagcccctgg 120
acgtctccgt cacaattacc ctgggagggt atcagcctat tttcacaatg agtgcccaac 180
aaagccagtt gaaagttatg gaccagcaga gctttaacaa atttatacaa gctttttcta 240
gggacaccgg tgctatgcaa tttctggaaa attatgaaaa agaagacata acagtagcag 300
aactggaagg aaactcaaat tctttgtgga ccatcagccc acccagtaag cagaaaatga 360
tacacgaact cctggacccc aatagtagct tctctgttgt tttttcatgg agtattcaga 420
gaaacttaag tctgggtgca aaatcggaaa tagcaacaga taagctttct tttcctctta 480
aaaatattac tcgaaagaat atcgctaaaa tgatagcagg caacagcaca gaaagttcaa 540
aaacaccagt gaccctcgag 560

<210> 814
<211> 579
<212> DNA
<213> Homo sapiens

<400> 814
gaattcggcc aaagaggcct agcttgatta taagatcggg tgcttaactt ctctgaaaca 60
ggctcctctg cagaaggaca gattggctat gatgatctga ttagacgacg aggagaagca 120
gcctggccta gaaggtgctc agtacgtggc agcggtgatg gtcatcgtct tcaggtgcga 180
gagaggctgg ggtcagcgac ctggggcttt ctttgtatca ttttatgaag aaaggtaaaa 240
ataccacagg cgagaacaag cagcaaaggg cggatgagat tttcatctg cagctttgaa 300
ttgatacctt taagtattga gctattcttt tgttaggaca gaacacgtta ttccattaga 360
agagaacatt ttggggtggt ggaagtgttc cacgtcctgt gtggggtgac agttacacgc 420
atgtcacatc agcagtctga ggagggaggg gagaagggcc gggctggata ccttcagcct 480
cttcatcgca ctccaggcac caagtgcaag ggcagggagt tttcattatt tagggaatgc 540
agccctggtg tagaggacac ctcgcggaga catctcgag 579

<210> 815
<211> 618
<212> DNA
<213> Homo sapiens

<400> 815

gaattcgcgg ccgcgtcgac ccggggatca ccatggcggc ctcattggtg gggaagaaga 60
tcgtgtttgt aacggggaac gccaagaagc tggaggaggt cgttcagatt ctaggagata 120
agtttccatg cactttggtg gcacagaaaa ttgacctgcc ggagtaccag gggggagccgg 180
atgagatttc catacagaaa tgtcaggagg cagttcgcca ggtacagggg cccgtgctgg 240
ttgaggacac ttgtctgtgc ttcaatgccc ttggagggct ccccggcccc tacataaagt 300
ggtttctgga gaagttaaag cctgaaggtc tccaccagct cctggccggg ttcgaggaca 360
agtcagccta tgcgctctgc acgtttgcac tcagcaccgg ggacccaagc cagcccgtgc 420
gcctgttcag ggggccggacc tcgggccgga tcgtggcacc cagaggctgc caggactttg 480
gctgggaccc ctgctttcag cctgatggat atgagcagac gtacgcagag atgcctaagg 540
cggagaagaa cgctgtctcc catcgcttcc gggccctgct ggagctgcag gagtactttg 600
gcagtttggc agctcgag 618

<210> 816
<211> 164
<212> DNA
<213> Homo sapiens

<400> 816
gaattcgcgg ccgcgtcgac ttcaaatctt gtgttaaaaa ggagcctttt cctccttctg 60
gaagttgctc tgattaaatt tttaagcatt aaaatatgct gccccatttt ctaataatgc 120
agtatataat acaactccca ttactaacta atgctcaact cgag 164

<210> 817
<211> 719
<212> DNA
<213> Homo sapiens

<400> 817
gaattcggcc aaagagccta cgccaacttc cttctactct aataattaaa ataaaaataa 60
tacttgggag gtaactggaa taaaggttct aaaatcaaaa ccctctgaag ggtgaaaact 120
gggagcctcc tgttcccata gtaaccacag cactcagggc actgtctccc agcgctggag 180
tactgtctta tgaccagaga tcctaagcaa cctctgctca tctgagttgt ccaccatatt 240
gtgggcatga gtccttgaca atagtaaata gcacctctgt tcccttattg ggtaaatgat 300
tttccaactc tgggaatgtg tagaattcat tatggaaata atgcaataat tcaaatccat 360
aatattgata ctttcatgtt aagtttagga ctaatcttgt gtatgctcct taagtgattt 420
gaatctttaa aaagcttatg attccaattt gaaatgtgaa attgatttta cgtttgtgat 480
ttgaagttga aaggtataag aatatttaac ttagctcatg aaaagtatta gactagattt 540
actataagtt taatgtatta gatttacaag agatgcttaa atatatgaga atgttttgtc 600
ttaattggtt ataatcttgt catatcaatg atttgaagtg ctaaaataga aaattaaata 660
tgataaatta cacaagaagt ttagaatgtt taaaagattt taataaacaa agcctcgag 719

<210> 818
<211> 100
<212> DNA
<213> Homo sapiens

<400> 818
gaattcggcc aaagaggcct aatttatatc ttggatgagg tggatgcggc cttggatctt 60
tctcataccc agaatattgg gcagatgctg cggactcgag 100

<210> 819
<211> 615
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (58)

<220>

<221> unsure
<222> (74)

<220>
<221> unsure
<222> (118)

<400> 819
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acaatagtac aaanggcaca gtgttgaaag atcttaattt ttgagtgaaa cttacttnaa 120
agaagtcatt tcccccccctg aatcttagtg taaaggcagc tgcagtctgc tgacagcttg 180
tggttatgct ctgatttact ggggaaggag gaggttgtac tattttaaat gcataataga 240
gcattcgttt cgtcatctgg aagcagagat ggaagaagct gggggaaat gagagacatc 300
actgttgctt tcgtggaggg aagctttgta gcatgttatc agacagcagt gcatattgaa 360
gaaaatatct gttaggaatg catgtcacca gatgtatttt gctttcaaga atggtagaca 420
catcaaacaa gaatcagata aaagcctgag aaaaagatgt tcagaagaat actggagtta 480
ttctttatgc ttcactgccc tttacctctc ttggtacctt ccagagaaac aagtatagat 540
gtatttttag cttgccgttt ccagcatcaa tatgacaaca tgattttgtc tttatatcag 600
taagcagcac tcgag 615

<210> 820
<211> 680
<212> DNA
<213> Homo sapiens

<400> 820
gaattcggcc aaagaggcct agcagacaga gatacatgat actcactgtt accattctgg 60
ctctctgtct tccaagccct gggaatgcac aggcacagtg cacgaatggc tttgacctgg 120
atcgccagtc aggacagtgt ttagatattg atgaatgccg aaccatcccc gaggcctgcc 180
gaggagacat gatgtgtgtt aaccaaaatg gcgggtattt atgcattccc cggacaaacc 240
ctgtgtatcg agggccctac tcgaacccct actcgacccc ctactcaggt ccgtacccag 300
cagctgcccc accactctca gctccaaact atcccacgat ctccaggcct cttatatgcc 360
gctttggata ccagatggat gaaagcaacc aatgtgtgga tgtggacgag tgtgcaacag 420
attcccacca gtgcaacccc acccagatct gcatcaatac tgaaggcggg tacacctgct 480
cctgcaccga cggatattgg cttctggaag gccagtgctt agacattgat gaatgtcgct 540
atggttactg ccagcagctc tgtgcgaatg ttcctggatc ctattcttgt acatgcaacc 600
ctgggtttac cctcaatgag gatggaaggt cttgccaaga tgtgaacgag tgtgccaccg 660
agaacccctg tgtgctcgag 680

<210> 821
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (291)

<400> 821
gaattcggcc aaagaggcct acttatgttg ggattgcttt tggctgttat tggtggactt 60
gtgtatcttc gaagaagtaa tatggaattt ctctttaata aaactggatg ggcttttgca 120
gctttgtgtt ttgtgcttgc tatgacatct ggtcaaatgt ggaaccatat aagaggacca 180
ccatatgccc ataagaatcc ccacacggga catgtgaatt atatccatgg aagcagtcaa 240
gcccagtttg tagctgaaac acacattgtt cttctgttta atggtggagt naccttagga 300
atggtgcttt tatgtgaagc tgctacctct gacatggata ttggaaagcg aaagataatg 360
tgtgtggctg gtattggact tgttgtatta ttcttcagtt ggatagctct cgag 414

<210> 822
<211> 205
<212> DNA

<213> Homo sapiens

<400> 822
gaattcgcgg ccgcgtcgac gtgggaggaa ataggtgggc tgaagaggag gaaaaggaga 60
gctagctctg tggctgtgtt tcaaacagaa atatttgatt ttagtccaga aaaaaagagc 120
agtttggtta tttgaaatgc caagtttctt ggtttatttt tgggttttgt tattgttttt 180
tggtaaagaa taccgttgtc tcgag 205

<210> 823
<211> 355
<212> DNA
<213> Homo sapiens

<400> 823
gaattcggcc aaagaggcct actttttgta atttaaacac tgagagaagc ccaaattggt 60
ttcaaagttg tatttttct tactgatata gcaaggtatc tgagcacatc aagcttgaga 120
ttgcagggga gaagcaggaa cattactggc ttacacaagg aaaggggcag ctattcagac 180
acgaataact gctgcactgt ttggtataaa ttgtcacaat ttcagaagag attcttagat 240
gttagtgaga aaaacatact taactttcct ttgcatttgt ttacattata aagaagtatc 300
tgccttattg gcatctgccc tgtcagtgca ggtcaatttg aaagaggaac tcgag 355

<210> 824
<211> 328
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (32)

<400> 824
gaattcggcc aaagaggcct agctaatttt tnttgtattt ttagtagaca cggggtttca 60
ccgtgttagc caggatggtc ttgatctcct gagcttgtga tccgcccgcc acggcctccc 120
aaagtgctgg gattacacgc gtgagccacc gcgcccggcc tgtactgtta ttcttattgc 180
ccttttatac ccactagtgg ttgggaagtt attcattcaa catcttttag tgttattcac 240
tttttaaaaa gttgaagtac agcatacata gagaaaagtg tgtcctccag ctttttattt 300
tattttattt ttttttagg cctctttg 328

<210> 825
<211> 101
<212> DNA
<213> Homo sapiens

<400> 825
gaattcggcc aaagaggcct actcccatcc ctccaaattc caggaaaaaa attttgagta 60
tgctgataaa ctcactgcaa ggtctcatac actcactcga g 101

<210> 826
<211> 394
<212> DNA
<213> Homo sapiens

<400> 826
gaattcggcc aaagaggcct aatcataaaa ttggaagtct tgtatgaatt ctttctcagt 60
cctgattctt tccttgttct ctttgcttat aggtggtgtt cggatggttt acccttcagc 120
atttgttttg atctctcaga atgacatccc ggttcctcag agtgttgcca gtgctggagg 180
ccacattgca gttgggcagc aagggcttgg tagtgtgaag gacccaagta actgtgggat 240
gcctctgacc cctcccacct ctccagaaca ggctatccta ggtgagagtg gaggtatgca 300
gagtgctgcc agtcacctgg tttcccaaga tggagggatg ataacgatgc acagtccaaa 360
gagatcgggg aagattcctc caaaactcct cgag 394

<210> 827
<211> 323
<212> DNA
<213> Homo sapiens

<400> 827
gaattcggcc aaagaggcct aaaggaagcc aatctaacaa tgtgtgagtt cagaaacctg 60
tcagccaaaa tggggtagca gattttgatg attttgattg ttgaaggggc ccttgcacta 120
tcacttttca ttccttttga taggaagttt tcacacatgg aaagcctgga cctgtttggc 180
ttatattcat acatacacac ataggtatat gtcaaaataa ctactttgta atttttttaa 240
tagcattttg tgaacatttt ccatgtcatt aaatattatt ctacgatagc atttcccata 300
tgtctttaga acacaaattc gag 323

<210> 828
<211> 286
<212> DNA
<213> Homo sapiens

<400> 828
gtcgagaaac ctctagtgtc acatataaag tgaggctgcc taacataaag actgagcgag 60
gcacccactt atcaattaga cattaactca atttttcttc tacgttaagg agtcatttta 120
aataagagct gtaaaatctt cctcctgtgt tccaagggat tgtttttac atccctcctt 180
gcagtgtgcc agttcttctt ttggagagca ctgatctcag aaaaacggga agaggctgta 240
tttcttgatt ggcagtatga aattaatatt cagggaagta ctcgag 286

<210> 829
<211> 484
<212> DNA
<213> Homo sapiens

<400> 829
gaattcggcc aaagaggcct aggttcagag cacaaatcta cagttaggtt gcctgggttc 60
cagtggcaga tctaccactt actataatag ttgtgtggcc tttgaattaa cctctccaac 120
cagtttcttc acatgtaaag tggggataat aatagtgcct gcctcaggat tactttgagt 180
attatatgaa ttaatgtaca tacaattatt ataatagtac atgccatgtg gaagtgctat 240
taatgttaat agtcatttcc attagcagca gcagcagcag attctccagc attcaccttg 300
ttctccttgt gaagatcatt tgataagtct ctcctcttcg ggtgttacag aatctgatta 360
cctcaacagt tggttttcct gatttgttat ttgcaagtag caaatgtcat ctacaaagac 420
agtactgttt cctagacttt cctaccactt tcaagtctac tgccagggaa aatgactact 480
cgag 484

<210> 830
<211> 321
<212> DNA
<213> Homo sapiens

<400> 830
gaattcggcc aaagaggcct aagatcatga attatgacga atttcagcac tgttggagca 60
agttcgtgta cagccaaaga gagctatttg agccttggaa taatctgcct aaatattata 120
tattactgca catcatgctg ggggagattc tcaggtgagg gtctccctcc aggctcatcg 180
cctcgctcct ctcacctcct gctcatcctc ttgaggcctc ccctctgttc cagaccaggt 240
cctctcctgg ccaggccctc ctgccttccc tcctgccccc tgcctgccct cgtggttaca 300
ctcccctcacc cactactcga g 321

<210> 831
<211> 340
<212> DNA
<213> Homo sapiens

<400> 831

gaattcggcc aaagaggcct accggccttt gtacgatgcc taccagcctc agtactcttt 60
gccgtaccca ccggagcctg gcgcagcctc cctctattac caggatgtct acagcctcta 120
tgagcctcga tacaggccct atgatggtgc tgcgtctgct tacgcccaga actaccgcta 180
tcccgagccc gagcggccca gctcccgagc cagccactcc tcggaacggc cacctcccag 240
gcaaggatat cctgaaggat actatagttc caaaagtgga tggagcagtc agagcgatta 300
ctatgcaagc tattactcca gccagtacga tatcctcgag 340

<210> 832
<211> 497
<212> DNA
<213> Homo sapiens

<400> 832
gattcggcca aagaggccta gcaatgaaca aggaacatca taatggaaat ttcacagacc 60
cctcttcagt gaatgaaaag aagaggaggg agcgggaaga aaggcagaat attgtcctgt 120
ggagacagcc gctcattacc ttgcagtatt tttctctgga aatccttgta atcttgaagg 180
aatggacctc aaaattatgg catcgtcaaa gcattgtggt gtcttttta ctgctgcttg 240
ctgtgcttat agctacgtat tatgttgaag gagtgcatca acagtatgtg caacgtatag 300
agaaacagtt tcttttgtat gcctactgga taggcttagg aattttgtct tctgttgggc 360
ttggaacagg gctgcacacc tttctgcttt atctgggtcc acatatagcc tcagttacat 420
tagctgctta tgaatgcaat tcagttaatt ttcccgaacc accctatcct gatcagatta 480
tttgtccagt actcgag 497

<210> 833
<211> 380
<212> DNA
<213> Homo sapiens

<400> 833
gaattcggcc aaagaggcct aatcagttct gcgaaggaga tggttggtca gaagatgaag 60
tacagtattg tgagcaggaa ctgtgagcac tttgtcaccc agctgagata tggcaagtcc 120
cgctgtaaac aggtggaaaa ggccaaggtt gaagtcggtg tggccacggc gcttggaatc 180
ctggttgttg ctggatgctc ttttgcgatt aggagatacc aaaaaaaagc gacagcctga 240
agcagccaca aaatcctgtg ttagaagcag ctgtggggt cccagtggag atgagcctcc 300
cccatgcctc cagcagcctg accctcgtgc cctgtctcag gcgttctcta gatcctttcc 360
tctgtttccc aactctcgag 380

<210> 834
<211> 235
<212> DNA
<213> Homo sapiens

<400> 834
gaattcggcc aaagaggcct agctgaagat gcgagatatt gctgggcagg ccctggcttt 60
tgttcaggat cttgtgacgg ctcttctaaa ctttcatacc tacacagaac agaggattca 120
aatttttcct gttgattctg ccattgacac tatatctcca ttgaatcaga agttctcaca 180
ataccttcat gaaaatgcgt cctatgtccg ccctcttgag gaaggaacgc tcgag 235

<210> 835
<211> 309
<212> DNA
<213> Homo sapiens

<400> 835
gcgatcgaat tctagacctg cctccagcct gggcaacaag agttgtctca aaaaacaaaa 60
aagaaagaaa gaaaaaaaca gccacagttt catcagcaca gcaaaaaggt ttttgttttt 120
gctcttggat tttgtcgttt ggtttttgct taatatcaaa tatccagtca gtgtaaactc 180
gtttataatt tggtcctttg atttcaagga gctatgatgc agttcgttgt ggggatgtgt 240
tgtctccatg tcatacatgt gactttgtcc atgtttgcac ccagttcaag gaagacacaa 300
aacctcgag 309

<210> 836
<211> 271
<212> DNA
<213> Homo sapiens

<400> 836
gaattcggcc aaagagaatt ctagacctgc ctcgagaggt gaccgcaaac tgcctccaga 60
gtacaacctt ccccacactt acgttgaaat gcagtcactc cagattgctg ccttcctttt 120
cacggtctgc catgtggtga ttgttgtcca ggactggttc acagacctca gtctctacag 180
gttcctgcag acagcagaga tggtgaagcc ctccacccca tcccccagcc acgagtccag 240
cagctcatcg ggctccgatg aaggcatcga g 271

<210> 837
<211> 422
<212> DNA
<213> Homo sapiens

<400> 837
gaattcggcc aaagaggcct agaataaaca agcaaagaaa ctacttgtta cactcatgcc 60
ttctccagtc tgtattattt gccaggtatt tgggaaacaa atttgaatga ggtgtcaacc 120
ccacccttaa agttgtctca gcatatctag agggatagaa aaataagtag ataattagca 180
catgacttca taaatcacat gtgtttatat ttatcatgtt atgacagcat tagagaaggg 240
atactaagtt aactttgcct gggttactaa gtattagcta taaaagttct aagatactat 300
tcttctctgg agagtttaat cactagggaa gacaggatgt gttatggaaa gaaaacatat 360
ataaaggcaa gaagatgaga atgtatatag tgttttcagg aagccgtaag aagatactcg 420
ag 422

<210> 838
<211> 448
<212> DNA
<213> Homo sapiens

<400> 838
gaattcggcc aaagaggcct agcagctcct tatcatgggg acaattcatc tctttcgaaa 60
accacaaaga tcctttttg gcaagttgtt acgggaattt agacttgtag cagctgaccg 120
aaggtcctgg aagatactgc tctttggtgt aataaacttg atatgtactg gcttcctgct 180
tatgtggtgc agttctacta atagtatagc tttaactgcc tatacttacc tgaccatttt 240
tgatcttttt agtttaatga catgtttaat aagttactgg gtaacattga ggaaacctag 300
ccctgtctat tcatttgggt ttgaaagatt agaagtcctg gctgtatttg cctccacagt 360
cttggcacag ttgggagctc tctttatatt aaaagaaagt gcagaacgct ttttggaaca 420
gcccgagata cacacgggaa gactcgag 448

<210> 839
<211> 295
<212> DNA
<213> Homo sapiens

<400> 839
gaattcggcc aaagaggcct agtttacaat cattgttcta gacattatta gataatttta 60
atccagtaac ttcattttc aattctgggt aaatttctt gtatcatttg ataatttcgg 120
cctcccaatc tttttctttt tctcctttg ttctatgctc cggggacatt ctttaactat 180
tatcttacaa tctctccatt ggatttttgt tgccatattt ttaacttcca aatgcttcat 240
tgggctgggc gcggtggctc acacctgtga tcccagcact ttgcgtagac tcgag 295

<210> 840
<211> 333
<212> DNA
<213> Homo sapiens

<400> 840

gaattcggcc aaagaggcct agaaatattt atcaaccatt ctttgctaaa gttatctaca 60
gtttggcaaa ggcaaaggaa aaaaatacac cagtagccat catattttga caatattata 120
agaagtaagt gctttgagaa ttcataagag aaagagaagc tttacatttg aggagctcaa 180
gaaacaattc acattaaata tatcatttga gattgacttt gataaaaaaa gtaattttag 240
tggatgaaac tggtgtggta tgaattcgtc agtgtgtgtg tgtgcgcatg tgtgtgtatg 300
tgtgtgtttt tgaggacaag gaagcaactc gag 333

<210> 841
<211> 605
<212> DNA
<213> Homo sapiens

<400> 841
gaattcggcc aaagaggcct agggggagaa gaggaagagg ccgttgctgt ccaggaagag 60
gcgcttgcgc ttctggtgca ggacgagggc cagcatggcg aagaagtgaa gatgaagagg 120
atgaagatct ggccctcggt gaccaggtac cagtagtaca ggccactggg tgccaccagg 180
agcagggcag gccctggaat caagctctca gctttagagg cagtaaagca gccgctgaag 240
tacatgaaga ggatgaggaa gaagggggatg taccacatgc agtgacccag gtactcatca 300
taatagtaga gcagctcaaa ggagtcgatc agcgtctccg gcttgagatt cttgatgatg 360
gggttctcac ggacagacag gtggtgctgg tagccactga agagcaggcg gtggttgaca 420
gagtcaccca ccaggtggat gctggcaccc atgatgaaga tgatgatgct cacgtacgtg 480
atggagcgtg gcagggtgcg gggggaccgc tcgatgagct tgagcaagag aaagggcgtg 540
atgacgttgt aggccatgtg gaagtagtcc ccaacactgg gcttgttgag tggaaaccac 600
tcgag 605

<210> 842
<211> 297
<212> DNA
<213> Homo sapiens

<400> 842
gaattcggcc aaagaggcct aatctcatcc aaattcctag ggctgatca ctcttctgtc 60
ctaaaaataa aacaaagcca aaacttctgc ttccctttga agcactacca tccttctttc 120
ctccagagct ctgcccactg ttttactttc tccctcccac ttcaggctaa agctcacttt 180
gctctgccag acctgttctc agcaaggatt cttttgtttt tttaaaccta cgtaatgatt 240
atcccatact attgtgtcct atttttttcct ttttctatgt atctgactcc actcgag 297
<210> 843
<211> 362
<212> DNA
<213> Homo sapiens

<400> 843
gaattcggcc aaagaggcct aggtgttttc atttggtgat caggactgaa cagagagaac 60
tcaccatgga gtttgggctg agctggcttt ttcttatggc tattttaaaa gatgtccagt 120
gtggggtgca gttgttagaa tctgggggag gcctcgtaca gccggggggg tccctgagac 180
tctcctgtgc agcctctgga tttagtttta ccagctatgc catgacgtgg gtccgccagg 240
ctccggggaa ggggctggag tgggtctcca ccattactgc tgctggaacg accacgtact 300
acgcagactc gtttaagggc cggtggacca tactcaagga cacttcggac gatacactcg 360
ag 362

<210> 844
<211> 298
<212> DNA
<213> Homo sapiens

<400> 844
gaattcggcc aaagaggtag tcatggctct catgtgcaag aaaatgaagc acctgtggtt 60
cttcctcctg ctggtggcgg ctcccagatg ggtcctgtcc cagctacacc tgcaggagtc 120
gggcccaggg caggtgaagc cttcggagac cctgtccctc gcctgcactg tctctgctgg 180
taccatcagc agtgggaggg atcagtgggg ctgggtccgc cagcccccag ggcagggact 240

agagtggatt gggcatgtct tttctactgg gagaccctac tacaacccgt ctctcgag 298

<210> 845
<211> 385
<212> DNA
<213> Homo sapiens

<400> 845
gaattcggcc aaagaggcct aattttaagt atttgcaata aatatatgta tatagattgt 60
atgtattcct atattcttat ttttcatttt attattaagt aaaagatcat taaaagtgaa 120
aataaaaacc ttggagtttt ttggtgaatc ttgaggttta acatacatct gagagtggcg 180
tgggtaagag tcctcagtta ctgccttata ctcctatggg atggttccca cagattgtat 240
ggaagagagt aaaatgagga acttggtgat aaatcagggt agtgtatttc ttttggaatt 300
taagtaaaac tgattaaatt ttccttatct gtctgtctcc atgttttctc ccttaatctg 360
ttttgtctcc taaccccac tcgag 385

<210> 846
<211> 313
<212> DNA
<213> Homo sapiens

<400> 846
gaattcggcc aaagaggcct agggattttg ctcactaatt taaactgaaa tgctggttgc 60
tactagaagg atcctattcc ttgtcagttg ctggcagaat tcccttgcca acctccccaa 120
ccacacaaaa tccttccctg ctgttagggc ctcacatttc tgcaaaagta tccctttgac 180
cctggccggg ctcggccata ctaatgtagt ttcttatctg ttggattatc caaataatgt 240
tctgtcagtt cccaccacag atgtgtctca gctccctcca ccttctcaag atcagtctca 300
ggtaaagctc gag 313

<210> 847
<211> 268
<212> DNA
<213> Homo sapiens

<400> 847
gatgcgagcg gctggaactc tgctggcctt ctgctgcctg gtcttgagca ccactggggg 60
cccttcccca gatacttgtt cccaggacct taactcacgt gtgaagccag gatttcctaa 120
aacaataaag accaatgacc caggagtcct ccaagcagcc agatacagtg ttgaaaagtt 180
caacaactgc acgaacgaca tgttcttgtt caaggagtcc cgcatcacaa gggccctagt 240
tcagatagtg aaaggccgga acctcgag 268

<210> 848
<211> 306
<212> DNA
<213> Homo sapiens

<400> 848
gaattcggcc aaagaggcct attgaattct agacctgcca cagtaatgct atatatttct 60
gagcattgtt tttctctaga taattttata tttttgagta taccccactt ccaagtgttt 120
tttgttttgt tttgctttgt ttttgttgtt gttgttttga gacagggtct cactgtgtcc 180
cccaggctgg agtgcagtgg cacaatgacg actcactgca gcctcaacct cctggggcca 240
agtgatcctc ccacctcagc ctctcaagtg gctgggacca cagaagtgca ccaccacgcg 300
ctcgag 306

<210> 849
<211> 516
<212> DNA
<213> Homo sapiens

<400> 849

gaattcggcc aaagaggcct aggtggacag aagtgctttt ctaatattta aagtacttaa 60
cagtaataat taggctgggc atggtggttc gggcctgtga ttgcagcact ttgggaggcc 120
gaggcaggag gatcacttga agctgggaga tggagaccag cgtgggcaat aaagtgagac 180
ctcatctcta ccaaaaaaag gaagggaaaa tagctgggtg gcctgtagtc ccagccactc 240
gggaagctga ggtgggaagg atcgcctgag cccaagaatt caagttgtgg tgacccgtga 300
tcgtgccact gcattccgtc ctgggtgaca gagtgagacc ctgtctcgaa agaaagaaaa 360
aacaataatt ctggtatttc aatagagggt tggaagacag ctggaatcta atctgcttga 420
agcagtcaaa cttgatggca ttttgtgagg cattatgctg gttgttcacc ccttgttata 480
ggttttcttc acgtatttac tccacatagt ctcgag 516

<210> 850
<211> 298
<212> DNA
<213> Homo sapiens

<400> 850
gaattcggcc aaagaggcct acatttctgg caagcttcca tttttcttct gtttggacat 60
taatagcaat aatttttgga tattctggac taaaccgttt cttgggccac ttgaaataaa 120
aataccactt ttaaagtgcc tattcagttc attgagaacc agttaatccg tatccaagga 180
atcaccttca aaacaaacaa acaaaaaaaa tccttgaact tcagctatgt atatcagaaa 240
tatgacaacc ctactgtttt tacaattaga ttttgtatgg cagacaggaa cgctcgag 298

<210> 851
<211> 209
<212> DNA
<213> Homo sapiens

<400> 851
gaattcggcc aaagaggcct aattataatt ttgttgtatt tgtttcctag gagcaagtgt 60
tcctgctgcc agttctttcc tctttaggcg tggttgagaa aaagcagaaa ctttacataa 120
agctgtattt cttaatcatc tttaatttga aacttaagaa aatgaattta ttctgttata 180
tttatgtaac ttatttcctg gaactcgag 209

<210> 852
<211> 358
<212> DNA
<213> Homo sapiens

<400> 852
gaattcggcc aaagaggcct atgtaaatcc aagtatcact actgtttttc tcctcataat 60
gcccttaaag caaatatttt ccttgctttc tataatcgga aagaggattc tgagagtatc 120
ttggctccat accactttat ttttttgtct tttctttttt tcccctctgt ggagaacaga 180
gtctcactat gttgcccagg caggtcttga actcctgggc tcaagcaatc ctctttcctc 240
tatctcctta agtgctgaga ttccaagtgt gagccaccat accactttaa actccctaaa 300
gggagggtcc ttatctgcaa ctcccacagc cacccccgcc ctatccccac aactcgag 358

<210> 853
<211> 261
<212> DNA
<213> Homo sapiens

<400> 853
gaattcggcc aaagaggcct atattaatca ggactttgtg gggggacagaa gcccaattaa 60
aactatctta ggcaaagggt agaatttgta atagggatgt taggtttctc aactaataac 120
caaaccatga gcagggtgga atgcatctgg ttcttaggga tgattttgat gctgtcagag 180
cactctttca gtttatttca ttcctctcat tgcgcattgt cagaaagcat aatccccagc 240
aactctctag agacgctcga g 261

<210> 854
<211> 242

<212> DNA
<213> Homo sapiens

<400> 854
gaattcggcc aaagaggcct acacaaaaga aggtgaggtc tcagttatag cgaggacccc 60
ctactcattc acagaggttc cctgcagagc gtcccacccc agtgatgccc agtgcatggc 120
actgccccac cctggtcctt ctcagcagca tgttagcatc gctggtccct gccagccccc 180
ttctctgtcc ccatttcctc ttctctcctt gtcctcctca cccccagcac tcgcccctcg 240
ag 242

<210> 855
<211> 242
<212> DNA
<213> Homo sapiens

<400> 855
gaattcggcc aaagaggcct aactcagtgt gattttaga aaaagaaaaa ctcggtggtc 60
tcatatcttt tgacagttgt ttgtgaataa taccctcccc aacaaccttc ccagtactca 120
actgctatgt aagaatgctt tcttatgtgg taaatgtctc agtattttgc tgcctggtat 180
ttgttcagtt tccttgtata tctcagggtc agaaagaatc aggctttctc ccaactctcg 240
ag 242

<210> 856
<211> 296
<212> DNA
<213> Homo sapiens

<400> 856
gaattcggcc aaagaggcct acgagaattg gggcaggtct ttcccatgct gtttcatgat 60
agtgaatgag tctcatgaga tctgatggtt ttgaaaacag gagttgtcct gcacaagctc 120
tctctctttg tttgctgcca tccacataaa atgtgacttg ctcctccttg ccttcctcca 180
ggattgtgag gcctccccag ccatgtggaa cagtaagtcc aataaacctc tttcttttgt 240
aaattgccca gtctcaggta tgtcttcatc agcagaatga aaatagacgg tttagg 296

<210> 857
<211> 324
<212> DNA
<213> Homo sapiens

<400> 857
gaattcggcc aaagaggcct agtggaaaat atcttatttc ttttttcaat tttaaaggct 60
tcctgctttt ttacccttgt atattatcag tgaaaaggat caacagttaa tttgagccaa 120
gtaataaaag aaattctgca tttgtcacga agacaattta tggtagacag ataaatacac 180
agattacagt gtaaagtctc catttaacct gtttataaaa gatacaaggc cacactaaac 240
tactcagtgg gatttatata ttccatccac ttgaaacaat aaacagtaat gtatccaaga 300
agattatgtg tcctatgtct cgag 324

<210> 858
<211> 252
<212> DNA
<213> Homo sapiens

<400> 858
gtggacctcc tgcacaagaa catgaaacac ctgtggttct tcctcctcct ggtggcagct 60
cccagatggg tcctgtccca ggtgcagctg caacagtggg gcgcaggact gctgaagcct 120
tcggagaccc tgtccctcac ctgcggtgtt tatggtgggt ctttgaccgg gtactactgg 180
gcctggattc gccagccccc agggaagggg ctggagtgga ttggcgaggt cagctttagt 240
ggaggactcg ag 252

<210> 859

<211> 294
<212> DNA
<213> Homo sapiens

<400> 859
gaattcggcc aaagaggcct actcatggac cgcctgcaca agaacatgaa acacctgtgg 60
ttcttcctcc tgctggtggc agctcccaga tgggtcctgt cccaggtgga actgcaccag 120
tcgggcccag gactcgttaa accttcggag atcctggccc tcacctgcac tctctctggt 180
ggctccatcg ctccttatta ttatttttgg gtccggcggc ccgccgggaa gggactggaa 240
tggattggaa gtgtctttgt cactgggacc tcaaagacta atccctcgct cgag 294

<210> 860
<211> 332
<212> DNA
<213> Homo sapiens

<400> 860
gaattcggcc aaagaggcct acaatcttca tcatgacctg ctcccctctc ctcctcaccc 60
ttctcattca ctgcacaggg tcctgggccc agtctgtatt gacgcagccg ccctcaatgt 120
ctgcggcccc aggacaaaag gtcaccatct cctgctctgg aaccagctcc aacgttggga 180
cacattatgt atcctggtat cagcaattcc caagatcagc ccccagactc gtcatttatg 240
acacttctgc gcggccctca gggattcctg accgattctc tggcgccaag tctggcacgt 300
ctgccaccct gaccatcacc ggaccactcg ag 332

<210> 861
<211> 291
<212> DNA
<213> Homo sapiens

<400> 861
gaattcggcc aaagaggcct attcttgttc aacttctaaa gagaaattgg agaagataaa 60
actggacact ggggagacca caacttcatg ctgcgtggga tctcccagct acctgcagtg 120
gccaccatgt cttgggtcct gctgcctgta ctttggctca ttgttcaaac tcaagcaata 180
gccataaagc aaacacctga attaacgctc catgaaatag tttgtcctaa aaaacttcac 240
atttacacaa aaagagagat caagaacaac cagacagagg catggctcga g 291

<210> 862
<211> 208
<212> DNA
<213> Homo sapiens

<400> 862
gaattcgcgg ccgcgtcgac gattcttatt ctcttgggga atagtctaga ttttaaaaca 60
ttttcttctg ctccctagaa tgtctgcatt ttttttgttt ttgatacggg gtcttgctct 120
gtcacccagg ctggagtgca gtggcgcgat ctcagatcat tgcaacctct gcctcccgtg 180
ttcaagcaat ctccccaccc tcctcgag 208

<210> 863
<211> 271
<212> DNA
<213> Homo sapiens

<400> 863
ggagaaaatt tgtaacaact ctgagcacat gctgggtgaa gtcacagctc aaggaaagat 60
aaagctgggc ggaaggaggt gtgcgtggct tctggggtgg gacccagagg ggaggctctg 120
ggacaggggc tggggttcag tgccagggcc ctgaggaaga aatggggact gatctcaaaa 180
ttccagaatt ccctgtacat ctgttcacgt gcttgtgtcc aggtgtgact tgtaaactgt 240
ctagtgtttg cattaaataa tgacactcga g 271

<210> 864

<211> 235
<212> DNA
<213> Homo sapiens

<400> 864
gaattcggcc aaagaggcct aaaaaaacaa atttagttcc acacatcgta ctgtatacaa 60
ttccatgttt ttgttttttt gtttgtttgt ttgttttaga caggttcttg ctctgtcacc 120
cagtctggac tgcagtggta tgatcatggc tcaccacggc ctcaacctcc tgggctcaag 180
caaccctcct gcttcaccct ctgtggtagc tgggaccgcg gacacgcaac tcgag 235

<210> 865
<211> 153
<212> DNA
<213> Homo sapiens

<400> 865
gaattcgcgg ccgcgtcgac ggtaacttgt tccctaaact gtccttatag ttaaatatat 60
atattaaaaa aaactataag ttaaaataac attcagattg tatagcatag gctgatgcat 120
tttaaaacaa tatttacaat attacccctc gag 153

<210> 866
<211> 282
<212> DNA
<213> Homo sapiens

<400> 866
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctatacctgc ctcaagtcta 60
attctgtatc ctgaacctct cttaacacat cccctctgct ccagtcccat ggtaggcctt 120
ggtcactgca gctgcctcct aacatgcttc ccggcttcta gtctctcccc acaccactca 180
gcagccttcc caaatggcag atcagcacct gaggccctgc tacagtccct gcaggggctg 240
cccgcaggcg acagcccact gtgctttgct ggtttgctcg ag 282

<210> 867
<211> 243
<212> DNA
<213> Homo sapiens

<400> 867
gaattcgcgg ccgcgtcgac ggggtttgta ggtggagctg catacctgtc agttttcccc 60
attatttcat catcagtcag aggtgacttt gacatgtcct ttctttgtcc agtgttcact 120
ctgcaggcca ctgccctcac tactctggtt catgtcttct gtgtgctttt gttgttccag 180
ctttgccttt catgccctag tgatttccct gttaaaatgc cacatcccct cttcccactc 240
gag 243

<210> 868
<211> 188
<212> DNA
<213> Homo sapiens

<400> 868
gaattcgcgg ccgcgtcgac cattctctta tgtggacatc acaatttacc tgttctccca 60
gcagtggata tttgtgttgt ttccagtcac ttgctgttat ctcagtgctt ataaatgatt 120
gtttctctta cacccaggaa ttccattcct gggttatggg ttatgcttat tatgctcacc 180
aactcgag 188

<210> 869
<211> 198
<212> DNA
<213> Homo sapiens

<400> 869
gaattcgcgg ccgcgtcgac ctctttgagt ctggagtctt acgttcttcg gttttaggga 60
atgctgtttg atgatttctt gacctttttt tcttcccttt ccagactcag gatactggtc 120
ctcttagact catgtatttt tatttttatt ttctctctca ttctctggct ttccttgaaa 180
cctcccccat acctcgag 198

<210> 870
<211> 271
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (93)

<220>
<221> unsure
<222> (147)

<400> 870
gctcatgtgc aagaaaatga agcacctggg gttcttcctc ctgctggtgg cggctcccag 60
atgggtcctg tcccagctgc agctgcagga gtngggccca ggactggtga agccttcgga 120
gcccctgtcc ctcacctgca ctgtgtntgg tgggtccatg aggagtagtg gttactactg 180
gggctggatc cgccagaccc cagggagggg cctggaatac attgggagta tctataacaa 240
tggggacacc tactataacc cgtccctcga g 271

<210> 871
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (166)

<400> 871
gaattcggcc aaagaggcta atggatctca tgtgcaagaa aatgaagcac ctgtggttct 60
tcctcctgct ggtggcggct cccagatggg tcctgtccca gttgcagctg caggagtcgg 120
gcccacaact agtgaagcct tcggagaccc tgctcgtcac ctgcantgtc tctggtggct 180
ccatcagcag tagtccccac tactggggct ggatccgcca gccaccaggg caggggctgg 240
agtggcttgg gaatgtctat tatggtggca gtagttacaa caatccgtcc ctcgag 296

<210> 872
<211> 275
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (251)..(252)

<220>
<221> unsure
<222> (257)..(258)

<400> 872
gcatggacct cctgtgcaag aacatgaagc acctgtggtt tttcctcctg ctggtggcag 60
ctcccagatg ggtcctgtcc caggtgcatc tgcaggagtc gggcccagga ctggtgaacc 120
cttcggagac cctgtccctc acctgcggtg tgtctggtta ctccttcaga agtggttact 180
attggggctg gatccggcag tccccaggga cggggctgga gtggatcgga agtatctatc 240

ataacggagt nnccttnnac aacccgtccc tcgag 275

<210> 873
<211> 110
<212> DNA
<213> Homo sapiens

<400> 873
gaattcgcgg ccgcgtcgac ctaggatcct aggaaagaat gcaaagtttg acaacattat 60
ttacacatgt tctgattgta acaaataatc tcactgtatg gggtctcgag 110

<210> 874
<211> 264
<212> DNA
<213> Homo sapiens

<400> 874
gaattcgcgg ccgcgtcgac gccaggagaa gtattggcag gctttaggtt attaggtggt 60
tactctgtct taaaaatgtt ctggctttct tcctgcatcc actggcatac tcatggtctg 120
tttttaaata ttttaattcc catttacaaa gtgatttacc cacaagccca acctgtctgt 180
cttcaggtcc caggtcaagt tcatggacct gagatgctcg caagggggat ggtgcctctg 240
gatccagttc aggcgtctct cgag 264

<210> 875
<211> 268
<212> DNA
<213> Homo sapiens

<400> 875
gaattcgcgg ccgcgtcgac attaaattag ataaggtata ttcagcccct ggaatagtga 60
gaattaacaa ttggtaatgc tttggcttac ctccctgacc ttgcataaac catgcatggc 120
tgaactcacc ctgtccctgc ccagattttg cactgttgag attatgaggt acttcctaat 180
ggttgctgca gctgcagccc ataaaacagc tctttgtgtg tatgaagaaa atcataataa 240
gaggggcctc cagagccaaa ctctcgag 268

<210> 876
<211> 356
<212> DNA
<213> Homo sapiens

<400> 876
gcctcgagct cctccctgaa gccacaaatc tgaggtcatc atttgcagtc tctccttcct 60
ttacttctat gtccaacagg ttaccaattc aatcttatag tcctttccag ggctgtgct 120
cttggcctgg ggtggtcttt tctctcctta cctggctgac agttacttgt ctctccgcag 180
gggatcatgt tcggaccccc aggccagccc actgctgctc cttggcactt tcacggccct 240
ggcgtgtccc cgtcatagcc cttatcagtc ccttgtattt acctggtcac cctccatctc 300
tgagggtatg gggccagat ggctcttgct gccctgatgt tttgagggat ctcgag 356

<210> 877
<211> 228
<212> DNA
<213> Homo sapiens

<400> 877
gaattctaaa taaaaaattg ttcggaggct gcaatgcgtg tcaaacatgc agtagttcta 60
ctcatgctta tttcgccatt aagttgggct ggaaccatga ctttccagtt ccgtaatcca 120
aactttggtg gtaacccaaa taatggcgct tttttattaa atagcgctca ggcccaaaac 180
tcttataaag atccgagcta taacgatgac tttggtattg aaacaccg 228

<210> 878

<211> 193
<212> DNA
<213> Homo sapiens

<400> 878
gaattcgcgg ccgcgtcgac ggttctgctt aatagtggaa taaaatcata caatccaaca 60
cataatgttt agtatgacta gacagcccca atacttggtg tacagtagat gctcattgag 120
ggtttaccaa atgatcacgt tcttctcata cctgatgcag accataaaag gttcgagtct 180
cccctccctc gag 193

<210> 879
<211> 263
<212> DNA
<213> Homo sapiens

<400> 879
gaattcgcgg ccgcgtcgac gagttcccat tctgagcatc ccaggagaag caaggacccc 60
ttttaaactc tgtcagaacc tgttcctctt gggttcattg tcacattact gaatttcagt 120
ttttctgtga tatgctgaaa ccccttattt tctgtgaact ttgtagaatt tccctttggt 180
ctcaggaggt agcccttgat gctagagagg cttcagaact gagctctacc tttccccaga 240
tccccaggga ggaggccctc gag 263

<210> 880
<211> 237
<212> DNA
<213> Homo sapiens

<400> 880
gaattcgcgg ccgcgtcgac ggaaattcta ggtgacttgc taattgtctt atttggaata 60
ctcccatttc tactaaagaa ttagtatctt tggtataaaa ataaggaggc agaccagttt 120
tacaaatagc tgctggccag gagaataaca gtttctgcca ggtgagcagt taaaaaaaag 180
gcagactgga aaaataactg tggaatggtg tttcttattt acaaggcatt actcgag 237

<210> 881
<211> 289
<212> DNA
<213> Homo sapiens

<400> 881
gaattcggcc aaagaggcct aataaagaag taattagatt caacactcag atcactactt 60
agtttagatt acattaagat tgttttgttt ttgaatgggg gatagaaaac cattttcctt 120
ttattttatt tacttatttt tgagacagag tctcgctctg tcccccaggc tggagtccag 180
tggcatgcct cggctcgctg caacctccac ctcccaggtt caagcagttc tccctgcccc 240
accctccgag tacctgggat tgcaggtgcc tgacaccact gtcctcgag 289

<210> 882
<211> 260
<212> DNA
<213> Homo sapiens

<400> 882
gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaatta gacctgcctc gaggacagcc 60
tgggtgacaa agcaagactc tgtctccaaa aaaacccata aaaaaacaaa gaaaccccaa 120
caaaattgtg cattaaacat atggatctgc ttttctggtt tgtgttcact tccctgcctg 180
gcttgtgctt ctgtcctgtg ctacccccctc cacggccttc ctgcctggat cttgcccctc 240
acctctgccg gcacctcgag 260

<210> 883
<211> 357
<212> DNA

<213> Homo sapiens

<400> 883
gaattcgcgg ccgcgtcgac atcagcccat ttttgtttct acatctgtgt gtgtagagct 60
ctggaataga attgttaagt ctgagcaaga aaaagcatag cgggttaagg acaagtgaaa 120
cgaagagaac cctctgtccc tggcagaatc tgcatgtaca tttcttgtct gtccttgtct 180
ctcttcttcc tgtctggccc attgcagaga gtattggaag tttccaacca ttggtggtac 240
tctatgctca tcctacctcc tttgctgaaa gacagtgtgg cagcgcccct gctgtctgcc 300
tactaccctg actgtgttgg catgagcccc tcctgcacca gcacaaaccg cctcgag 357

<210> 884
<211> 144
<212> DNA
<213> Homo sapiens

<400> 884
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc cttttcccca 60
ctattccatt agaccccaca aatgttagtt ttgtgtgtgt gtgtgtgtgt gtttttaatc 120
actgtaaccg gatgcaggct cgag 144

<210> 885
<211> 189
<212> DNA
<213> Homo sapiens

<400> 885
gtgtctttct gcatgtctct ttatgtctct atgtgtattt atctctctca gtctctcata 60
caagcataca cacactcagg atacctcgat ccagcagccg gagcaagcgg agataccaga 120
gataccactg gtcccagaag cggtccgtca tcccaccctg aactcatcct tcacagccag 180
tccctcgag 189

<210> 886
<211> 221
<212> DNA
<213> Homo sapiens

<400> 886
gaattcgcgg ccgcgtcgac actttgctta tgattttttt tttaattagc ctttgagtgc 60
ttttttgct tctgtcttac aagaatttca aatttttcta gaatccaact taccagtgtt 120
ttcctttaat gtggtggttc ttagccctgg ctatgcacta tacacaggct tttatgttta 180
caaagctccc aagtgattct cctgtgacac tgaccctcga g 221

<210> 887
<211> 250
<212> DNA
<213> Homo sapiens

<400> 887
gaattcgcgg ccgcgtcgac gctggaagct tttgaagatg gtttttgtgg gggcatggtg 60
gctttatgtc tttatgcctg tttctgttgc tgggagtctc caggggggcac agtgtgggaa 120
tcacatgcat gctctgcccc tccctgcttg tagaggggag gggacaggat ggttaaaagt 180
gggcgtgccc tccagcaatc ccggttgtca tccagcacgg acttcatcac tcctctgcca 240
tcccctcgag 250

<210> 888
<211> 269
<212> DNA
<213> Homo sapiens

<400> 888

gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctccagtgtc 60
ttctgaaacc tttggggctg acacaagatc ctttagtgtt tgggatgacc tctttcctgc 120
agacttcttc ccctatccct aactcatgca tggaaaacgt ttgtcaggct ggtttcccga 180
gcctcctgca cctcaacatc acgctcaccc ttttgggttt agcccagtgt tatttagcaa 240
atttctccag ctgcaaggaa ggtctcgag 269

<210> 889
<211> 264
<212> DNA
<213> Homo sapiens

<400> 889
gaattcgcgg ccgcgtcgac cagagtaaat gcaacatttc ctctgctaca tttccacaat 60
tctcactgct gttctaccag gcctggcatg ttcttatccc agggactttg catttactat 120
ttcctctgcc tgcacaattg tatacctgag gcatacatgg ctagctctct cagttccttc 180
aggtcttcaa ccctccaaag tcaccttcac acagtgaagc cttccctggc catcttacct 240
acaatttcaa cccaaacact cgag 264

<210> 890
<211> 624
<212> DNA
<213> Homo sapiens

<400> 890
gaattcggcc aaagaggcct acccttcccc cgccgctccc gccgcctctc taaggagggt 60
atcctgcctc ccagcgccct ggatggggct ggcacccagc ctgggcagga ggccactggc 120
aacctgttcc tacatcactg gcccctgcag cagccgccac ctggctccct ggggcagccc 180
catcctgaag ctctgggatt cccgctggag ctgagggagt cgcagctact gcctgatggg 240
gagagactag cacccaatgg ccgggagcga gaggctcctg ccatgggcag cgaggagggc 300
atgagggcag tgagcacagg ggactgtggg caggtgctac ggggcggagt gatccagagc 360
acgcgacgga ggcgccgggc atcccaggag gccaatttgc tgaccctggc ccagaaggct 420
gtggagctgg cctcactgca gaatgcaaag gatggcagtg gttctgaaga gaagcggaaa 480
agtgtattgg cctcaactac caagtgtggg gtggagtttt ctgagccttc cttagccacc 540
aagcgagcac gagaagacag tgggatggta cccctcatca tcccagtgtc tgtgcctgtg 600
cgaactgtgg acccccaact cgag 624

<210> 891
<211> 790
<212> DNA
<213> Homo sapiens

<400> 891
gaattcggcc aaagaggtct acttaccctt tgctctgaat gtgtggttta tgaccctcta 60
tgagcaaagg aatgagatta ctaggctttt cagaattaat gtttaaagag taagaggttc 120
agagggaagc cctgcaggat aagtgaagaa cagccactat ttgtgtgtaa gaaagtaaga 180
catccagttt gactatttgg aggccttcta ggtggatcct tgtctgttca gttagccgag 240
atcattggct gaagaaaagg cttgggataa atgcggtgct gctgtatcag cccatatcat 300
gtactgttgc ataagtgaat ttatacaagt ggacagttgc tatgatcaag ttttcaaact 360
ttccatctca ttctgagttt aatgctctga tagtgttcag gtagaaagtc aactccaatt 420
ccttgtggac attcaccttt acactttaac accctgaacc ctggctttct gccaaaatat 480
tttctttccc agtggctgga aactgattag ctagatggga gaacaaaggt ggctttgtac 540
tggggcatat tgcttttgag aatttagcag agagcattca aatggagtct ggatgtgatg 600
ccaaattatg cagatttgga gtttattttg gttaggtttc ccatgagtag gtatgtaggc 660
aacgtaatac tgttctcagt ttatatggtc tggaatttcc cttataaatg ttatataggc 720
tttccttatt gattgtttta aaacacaaat atgtatgatt ttgagaaaac acattaccag 780
aaggctcgag 790

<210> 892
<211> 428
<212> DNA

<213> Homo sapiens

<400> 892
gaattcggcc aaagaggcct acttcatctt gtccccgttt catgccgttt cactccaccc 60
gcgtcgcttt tctttctccc ccttgtaatt tttatgaggg cgaatcctat gaaatggctc 120
attggaccgt tttctgtggt tcagcctatt tgctgttggc caaataacta gctgtggctt 180
ggtttttgaa attctctgca gatcagagct atagagctaa gagtttgagt atgaagaagc 240
actgtttata catgcacgaa aagcgtgctt ttttgctttt ttttgttttg ttattgagat 300
ggggtcttgt tctgctgccc tggctggagt gcattgatgc agtcgtagca gcctccacct 360
cccgggctca accgagcctc ccgcctcagc ctcttgagaa gctgggactc cagggggagg 420
ccatcacg 428

<210> 893
<211> 164
<212> DNA
<213> Homo sapiens

<400> 893
gaattcggcc aaagaggcct agtgaagggg attttttttt tcttttaaac tgaaggtggg 60
gtacatggtg cagctggttc tgtcattgct cagcctagtt ggcgtccagc ttggccattt 120
cctgcacata gatgcctata ctctcgctgt caaaaagcac gaag 164

<210> 894
<211> 419
<212> DNA
<213> Homo sapiens

<400> 894
gaattcggcc aaagaggcct aggtaggcct gagtgggctc agaaatgtct tttcattgat 60
tctacaaaaa gagtgtttcc aacccgttta attaaaacaa agatttaact ctgtgagatg 120
aatccaaaca tcacaaagca tttccacaga tagcttgctt ctagttttta tcactggata 180
ttccgttttt cactataggc ctcaatgagc tcagaaatgt tccttcatag attctacaaa 240
aagcaagttt ccaaggtgat gaatcaaaac aaaagtttaa atctgtgatg taaatccaga 300
aaacccaaag cattttaact tatagcttgt ttctactttt taacatggaa tattcagttt 360
ttcattatag gcctcagtga gctctgaaat gttccttagt agatgctaca aaaagagtg 419

<210> 895
<211> 460
<212> DNA
<213> Homo sapiens

<400> 895
gaattcggcc aaagaggcct agggaattaa tgctaaacta tgtccctgct cacttgctct 60
atgaccattc tggtaaatcc ttctatcagt cacttttctg ctataaaaga tttaaaaagt 120
agcagggtgg gctttctgtt cttccatata gacatttcag ccactgacta cctttggtga 180
aaagaaaaaa aaagatccca aacatgcttt tgaaatgaac agtccatcta agtgtctagt 240
ttgacaaata aatagttaga tgccttcttc atacttgata tttttagtgc aaaatataac 300
tggttatgtt acttattaca gttgaaattg ctattatatg attcatgact tattaggatg 360
attgaggtct atgattacag ttttgtttgc atatgtacct caaggaccta caggttatgt 420
aaggtacttg cttgctttga atacctcttt ccacctttac 460

<210> 896
<211> 319
<212> DNA
<213> Homo sapiens

<400> 896
gaattcggcc aaagaggcct agcaatggaa tgggtaatac ataaattaaa tgctgagatt 60
gaagaactga cagcctcagc aagaggaacc ataaggactc caatggcagc agcagcgttt 120
gcagagatgc ggccgctttt tttttttttt ttttttgata agttggtgta aggctatgtg 180

acttgatcaa aacagatgca gggcctctaa ataaaaggga tcatctgaaa ttaatgttgt 240
ttgaaattac tatctgattt tgagggttcc agtatttctg tgaaaattca acaagaactc 300
cttggaaact ggtctcgag 319

<210> 897
<211> 601
<212> DNA
<213> Homo sapiens

<400> 897
gaattcggcc aaagaggcct agacacggct ggaggagaag tcccgggtaa aatgtgatca 60
gtactggcca gcccgtggca ccgagacctg tggccttatt caggtgaccc tgttggacac 120
agtggagctg gccacataca ctgtgcgcac cttcgcactc cacaagagtg gctccagtga 180
gaagcgcgag ctgcgtcagt ttcagttcat ggcctggcca gaccatggag ttcctgagta 240
cccaactccc atcctggcct tcctacgacg ggtcaaggcc tgcaaccccc tagacgcagg 300
gcccatggtg gtgcactgca gcgcgggcgt gggccgcacc ggctgcttca tcgtgattga 360
tgccatgttg gagcggatga agcacgagaa gacggtggac atctatggcc acgtgacctg 420
catgcgatca cagaggaact acatggtgca gacggaggac cagtacgtgt tcatccatga 480
ggcgctgctg gaggctgcca cgtgcggcca cacagaggtg cctgcccgca acctgtatgc 540
ccacatccag aagctgggcc aagtgcctcc aggggagagt gtgaccgcca tggagctcga 600
g 601

<210> 898
<211> 676
<212> DNA
<213> Homo sapiens

<400> 898
gaattcggcc aaagaggcct agggctggca tacttgttaa tactgatgtc catatagagc 60
agtaacatta gcgttaatat cagacattaa gttttaacta tatttggaaa tctttaaaca 120
gttttgatct agtaaaacat acaaaatgca caaaatataa aatgttaggc tctgaatcca 180
gaagaaaaaa agttctcaaa aacagtacca taaattagat tattctaaca ctatcaacag 240
attgcaaggc atttggttat ttgggcagca tacctggtct aggaagtagt tgacatgtga 300
tatggagaga tggggatcac ccaggaactc ttgttccaaa tcaagcagtg cttggcgata 360
aggctgcaaa acagaatcca gccctgtgca gaaggcccgc aggtagattc catgtaaccc 420
accttggccc tgttgagatg gatggtgatc ctgctgttgc acatggcccg tgtactgttc 480
aatgaactca gtgaagcgaa tatagtctgt gccgagccgg cagagtcgat tcaggacact 540
ggtctcactg ggtggaggga aagggaagtc ctgcgatacc tgcaggccac tccgcttgtt 600
ccaggtgaaa atggacccag ggtacccgct cagagccaag agcagttcgt ggatcattcc 660
cacggcggac ctcgag 676

<210> 899
<211> 391
<212> DNA
<213> Homo sapiens

<400> 899
gaattcggcc aaagaggcct aacaggttct gtaagttacc tatttttttg gactttataa 60
gttatcagca agcttcttgt tagtaaaggc atgataatga aacttgaatt catctacaaa 120
attggatgtg cccatcaagg ggcctctaaa ccaatttaag cccaaagtta actaattaca 180
atttctactg gttttagtaa aactagcata gtcaaccaag taaacaaagt ccattgttaa 240
tcttatttga gttagctaac attacattct agtaatgggt acacctaaat atatcatgac 300
ttgagtttca ttacattcag acataaacta caaattccta atgtgcaaac tactgttgac 360
atttttctta atcactgatg taccatacca g 391

<210> 900
<211> 597
<212> DNA
<213> Homo sapiens

<400> 900
gaattcggcc aaagaggcct aaagaatcac gagaagtcaa agaagcatcg ggaaatggtg 60
gccttgctaa aacaacagct ggaggaggaa gaagaaaatt tttcaagacc tcaaattgat 120
gaaaatccat tagatgacaa ttctgaggaa gaaatggaag atgcaccaaa acaaaagctt 180
tctaaaaaac agaagaaaaa gaaacagaaa ccagcacaga attatgatga caatttcaat 240
gtaaatggac ctggagaagg agtaaaggtt gatccagaag atactaactt aaatcaagac 300
agtgccaaag aattggaaga tagtccccag gaaaatgtca gtgtcacaga gatcattaaa 360
ccatgtgatg atccaaaaag tgaagctaaa agtgttccta aacccaaagg aaagaaaacc 420
aaagatatga aaaaacctgt cagagtacct gctgaaccac aaacaatgag tgttcttatc 480
agctgtacaa cctgccatag tgaatttcca tctcggaata aactttttga ccatctaaag 540
gccacaggtc atgcaagagc accttcatca tcgtctttaa acagcgcaat cctcgag 597

<210> 901
<211> 326
<212> DNA
<213> Homo sapiens

<400> 901
gaattcggcc ttcatggcct acgcagggct gagcaggcct gttgccagcc caaccccgtg 60
cctggtctgt gaggggcaga gcatgagctg gcttagagcc ctgagtgggc accggcttgg 120
gagggtgcgg ggagttgact ccttccctaa ctgctctgcg cctggcccct gcctctacag 180
gagcaggtgg tgaggatggc tccgggcccg tgtggggcct ccccgaccca aaagcttcaa 240
ggacacgggg atgccagcct cttccccaag atgattttat tgaatgcaca caaagttcat 300
ccttgggttt gcaaaaagtc ctcgag 326

<210> 902
<211> 537
<212> DNA
<213> Homo sapiens

<400> 902
gaattcggcc aaagaggcct atgccatagt gctgaaggta gaggtgtctg tgcaaagcta 60
gtcatttgtt aacagcaatc agaagagatg gggcaggca cacctgtcag aggtggcagc 120
agagctggca ggacaggacg gctgggctgg tctggtcagg tgagcatgtc ccagagacag 180
cagcaacaga gagccgtcca gcaggctgtg aggcaggtgg atggtcctag ctcatctctt 240
ctttggtctt ctaccacata cactgtggtt ttaggaggct cctgaggtcc accctgccag 300
ccgtactgtg ggtatccttg gtaggggtac ccttgaggag gtgggtaggg tccccccata 360
ggtcctggac ccattggttg tggtggataa ggtgggtatg gggccgttgg accagggcct 420
ggatatggtg gagggttctc ttggttcatc ggggacctgt aaagtgcacc tctcctctcc 480
acgaaccgac tggataacgg tcgggtctga acctgaggag cccggaccag cccgcag 537

<210> 903
<211> 316
<212> DNA
<213> Homo sapiens

<400> 903
gaattcggcc aaagaggcct agccagaaaa agaccagccc aaaagtgctc aacttcctcc 60
agaaactttg gcgacaatgt tggcctgtct gcaagcttgt gcagggagtg tttctcagga 120
gctatcagaa actatcctca ccatggtagc caattgcagt aatgttatga ataaggccag 180
acaaccacca cctggagtta tgccaaaagg acgtcctcct agtgctagca gcttagatgc 240
catttctcct gttcagattg accctcttgc tggaatgaca tctcttagta taggtggttc 300
agctgccccc ctcgag 316

<210> 904
<211> 687
<212> DNA
<213> Homo sapiens

<400> 904

gaattcggcc aaagaggcct aggcttggat tctgtcggat ggacttgggg ctagctgcgg 60
cggggctgga ggaggccaga taaccatgtc agccacagtt gtagatgcag ttaatgctgc 120
acccctatcg gggtccaaag aaatgagttt ggaagaacca aagaagatga ccagagagga 180
ctggagaaag aagaaggagc tagaagaaca gcgaaaattg ggcaatgctc ctgcagaagt 240
tgatgaagaa ggaaaagaca tcaacccccca tattcctcag tatatttctt cagtgccatg 300
gtatattgat ccttcaaaaa gacctacttt aaaacaccag agaccacaac cagaaaaaca 360
aaagcagttc agctcatctg gagaatggta caagaggggt gtaaaagaga attccgtaat 420
tactaagtac cgcaaaggag catgtgaaaa ttgtggggcc atgacacaca aaaagaaaga 480
ctgctttgag agacctaggc gagttggagc caaatttaca ggtactaata tagctccaga 540
tgaacatgtc cagcctcaac tgatgtttga ctatgatggg aagagggatc ggtggaatgg 600
ctacaatcca gaagaacaca tgaaaattgt tgaagagtat gccaaagttg atttggcaaa 660
acgaacattg aaagcccagt tctcgag 687

<210> 905
<211> 557
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (130)

<400> 905
gaattcggcc aaagaggcct aaaggcctgg accttgacca tgtctttgaa tggatgggag 60
cccctggggg gccacagttc aacccactcc tggcggtgac accccgggag ggatgggccc 120
gaacgtttcn ttccccttcc tctctctgtc ccttcatttc tcattagaat ggaagagggg 180
aaggtgcaga gggaaatgca gcaggaaaag ccactttgtt ctgggagagc acttggctga 240
aaggcccagt agagcaggaa gcacaagtct cttaatcttc cagggcctca gttttcatca 300
tccacaaagt gggtgcagtg tgccaagatt ttagtgagtt gagagactgt cccaaagacc 360
acagagcttt ttgggaagct gttgctctaa aaaaatggtc ataatgacaa ttaccaggag 420
gcatcagaca ctcctgtgcc actggctaga catgggttat ctcgtttcat gtccgaagct 480
ccccgcaccc accctccttg cagagttgaa gaggtgctgt gagcagaaaa cctgccaagg 540
gacccagaac gctcgag 557

<210> 906
<211> 485
<212> DNA
<213> Homo sapiens

<400> 906
gaattcggcc aaagaggcct acttgcatca agtatatctc ctgtcgtatt ttctttgtgg 60
tacctgtttt tactgcttta ctgtcagttt tcctggggtt ctggggataa gcagatataa 120
acttgtatat tcagtcttcc acacttatct gagagttctc aaccattgtg tcttaagcaa 180
ttgataaagg acccaaaccc agagatcgaa accaaaagat tcagttaagg ggcagattgt 240
taggggcaat tttgctttcc tttttaacaa taaatttgaa ctgtgactga aaattggaat 300
ttcctatcag tctttaaaac tatcagtgcc tgattcagag attctggtgt cagtgcacag 360
ggattggcct agaaaatagc aatttttaaa gctttccagg tgataccaat gtgcagccag 420
cccactgcta tatggacttt ggtcctaaaa ttctgcatat acttaaaatg gctactttcc 480
ccgag 485

<210> 907
<211> 569
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (119)

<220>

<221> unsure
<222> (151)

<220>
<221> unsure
<222> (155)

<220>
<221> unsure
<222> (269)

<220>
<221> unsure
<222> (281)

<220>
<221> unsure
<222> (409)

<400> 907
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tccctgcgcc tggccaccgc cttcgacccc gcccccagtg cctgctctgc cctggcctnc 120
gggtgtgctc tacggggcct tctcgctgca ngacntcttt cctaccatcg cctcgggctg 180
ctcctggacc ctggagaacc ctgaccccac caagtactcc ctctacctgc gcttcaaccg 240
ccaggagcag gtgtgcgcac actttgccnc ccccgcctgc ngcccctgga ccactacctg 300
gtcaacttta cctgcctgcg gcctagcccc gaggaggcgg tggcccaggc ggagtcagag 360
gtggggcggc cagaagagga ggaggcagag gcggcagcgg ggttggagnt gtgcagcggc 420
tcaggcccct ttaccttcct gcacttcgac aagaacttcg tgcagctgtg cctgtcggct 480
gagccctccg aggccccgcg cctgctggcg cccgctgccc tagccttccg ctttgtcgag 540
gtcttgctca tcaacaacaa caactcgag 569

<210> 908
<211> 504
<212> DNA
<213> Homo sapiens

<400> 908
gaattcggcc aaagaggcct acactcacta ttatttttca gttctttctt tacccagcct 60
ttctccttca tgtgaaaatg ttcattcttc tctcctcctt gaagctctat tctttgtcat 120
atgtaactct ttatgctctg gttcttctct atttctgttt cttttttgtt ttctctatgg 180
gctctttttt tattcattac ctaaatgtag gtattcccat ggtttcatcc ttgaccttac 240
tctacaaaca cgatttctat ttccctgatt tcatttctca tctgtatgct tatgaccttt 300
ctgtcaagta ttagattcac atatccaaat ggcagctact gcttcacctg gatgcctcat 360
agccatttca aatccaccta gtcattcaaa gtagaaaccc acaggtaact atgaaccccc 420
aaacaccacc ttcttaactt catatattta atgaagcacc aagctgtgac tcttctacct 480
cctgaatact actctcccct catg 504

<210> 909
<211> 440
<212> DNA
<213> Homo sapiens

<400> 909
gaattcggcc aaagaggcct acattaatcc ttccctggct gtatctgcct ccttgccaca 60
ggttatcatt attctaaata ttgtgaaagt ttctccatcc ctttaaacta ttttaccata 120
tgtatgtata tacacccaca cacacatata tatactgaga accatctatg atttcatttt 180
cttttttata ttgctataaa cgaaattata ctctctatat atttcaatga catttcttta 240
ctcaatcttg tgatcttgaa atttgctttt gttgatatgt gtggcagtaa tttgttcagt 300
tttcactcct ttacgtgttt cattgtataa acacatcata gtttattcat ccttacttct 360
gttgttggaa atttaaatg tttctaggtt tctttttgtt gttcctgcta ttatttatgc 420

accacacaca tacactcgag 440

<210> 910
<211> 374
<212> DNA
<213> Homo sapiens

<400> 910
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catgtgctaa caccacgaat aaaggcaact cacgttgctt ttgattgcat gaagaattat 120
ttagatgcaa tttatgatgt tacggtggtt tatgaaggga aagacgatgg agggcagcga 180
agagagtcac cgaccatgac ggaatttctc tgcaaagaat gtccaaaaat tcatattcac 240
attgatcgta tcgacaaaaa agatgtccca gaagaacaag aacatatgag aagatggctg 300
catgaacgtt tcgaaatcaa agataagatg cttatagaat tttatgagtc accagatcca 360
gaaagaagct cgag 374

<210> 911
<211> 575
<212> DNA
<213> Homo sapiens

<400> 911
gaattcggcc aaagaggcct acagacctct tccccacagc ctcggcctct tccacggagc 60
cttctcctgc agggcgagag cgttcctcca gttgtgggtc tgggggtggt ggcatctccc 120
ctaaaggaag tggtccctct gtggcaagtg atgaagtctc cagctttgcc tcagctctcc 180
cagacagaaa gactgcgtcc ttttcgtcgt tggaacccca ggatcaggag gatttggagc 240
ccgtgaagaa gaaaatgaga ggagaacaca tccctttctc ctgtagatgg ggaccttgac 300
ctgaacgggc agttgttggt cgcacaaccg cgtagaaatg cccaaaccgt ccacgaggac 360
gtcagagcag cggctgggaa gccagacaag atggaggaga cgctgacatg catcatctgc 420
caggacctgc tgcacgactg cgtgagtttg cagccctgca tgcacacgtt ctgcgcggct 480
tgctactcgg gctggatgga gcgctcgtcc ctgtgtccta cctgccgctg tcccgtggag 540
cggatctgta aaaaccacat cctcaacaac tcgag 575

<210> 912
<211> 632
<212> DNA
<213> Homo sapiens

<400> 912
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tctctctcct ggctctcagc tcaggggcca tttcccaggc tgttgtgact caggaatctg 120
cactcaccac atcacctggt gaaacagtca cactcacttg tcgctcaagt actggggctg 180
ttacaactag taactatgcc aactgggtcc aagaaaaacc agatcattta ttcactggtc 240
taataggtgg taccaacaac cgagctccag gtgttcctgc cagattctca ggctccctga 300
ttggagacaa ggctgccctc accatcacag ggcacagac tgaggatgag gcaatatatt 360
tctgtgctct atggtacagc aaccatttta ttttcggcag tggaaccaag gtcactgtcc 420
taggtcagcc caagtccact cccacactca ccatgtttcc accttcccct gaggagctcc 480
aggaaaacaa agccacactc gtgtgtctga tttccaattt ttccccaagt ggtgtgacag 540
tggcctggaa ggcaaatggt acacctatca cccagggtgt ggacacttca aatcccacca 600
aagaggacaa caagtacatg gccaggctcg ag 632

<210> 913
<211> 359
<212> DNA
<213> Homo sapiens

<400> 913
gaactttagc cctgtcttct tttttagtgt tcagcactga caatatgaca ttgaacatgc 60
tgttggggct gaagtgggtt ttctttgttg ttttttatca aggtgtgcat tgtgaggtgc 120
agcttgttga gtctggtgga ggattggtgc agcctaaagg gtcattgaaa ctctcatgtg 180

cagcctctgg attcagcttc aatacctacg ccatgaactg ggtccgccag gctccaggaa 240
agggtttgga atgggttgct cgcataagaa gtaaaagtaa taattatgca acatattatg 300
ccgattcagt gaaagacaga ttcaccatct ccagagatga ttcagaaagc atgctcgag 359

<210> 914
<211> 501
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (54)

<220>
<221> unsure
<222> (70)

<220>
<221> unsure
<222> (226)

<400> 914
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ttgctatgtn ataaaaagaa caacaaatat ttaactctac ttcacgctat gtatgctgac 120
gtatttgggg gtgaagtgta ctaatgtctt catctatctt taaaatgcac caaaaaataa 180
aaaaagatgg acaggtaaat ttttcttttt tgataaagca aatgtnacac aaaatgttgg 240
aatctaactg ctactgtgtg tatacgctgc acagttcttt caacatttca tgtttgaaat 300
ttgtcataat caactgaggg aggaggaaca aacaaaagat gcatctggct atttttgtag 360
ggaagcttct cttctctgtc caacctccag cgtagaaccc taaaaacatc aactatataa 420
tctactctct catgccaact ccttaaggac acacacttgt ccacactggt tccttatatt 480
actgaccttg aaccaatttt t 501

<210> 915
<211> 275
<212> DNA
<213> Homo sapiens

<400> 915
gaattcggcc aaagaggcct agctctgtta atcctatgga acctttttctt tgctccctca 60
ggacctccag tcctctttca atctttgtcc tactaatgtg gccctgtttg tctttacttc 120
ctggcttcca tgctggcttg ggttccttat gccctccctc cacccaggtt cacctctctc 180
ttctgtcatc atcactgttt ccatggccac actctagctc tatcaccccc agaaactgtg 240
cttcccccac cacgttccca tcacccatcc tcgag 275

<210> 916
<211> 525
<212> DNA
<213> Homo sapiens

<400> 916
gaattcggcc aaagaggcct aggctgacgc tgcgttttat ttttttcaag gattcagtga 60
agtcagataa tcgaatattt ctcatctcac tggcagacat attcttcacc tgttctggtt 120
ttagttctcg gataggaccc agtgctgcat cttttgccaa agctgttagg tcacttcctg 180
agtatccatc agtcattcta gcaagttgtg ctagttcttt ttgggtcaat ggacttcctt 240
gtttacataa cagattttta agcaaaagta gtcttgtctc ctcatttggt aaagacacat 300
atacccgttt gatgaaacgc ctgagaacag cctcatcaag ctcttgtggc ctattagttg 360
cacccattac aagtactctg tcatctccag cagactgtac accatcaaat tctattagaa 420
attcagtttt taggcgtcta ctagcatcgt gctccccttc tcttctttca cacaaaaggc 480
tatcaacttc atctataaaa attatagaag gttgaagttc tcgag 525

<210> 917
<211> 707
<212> DNA
<213> Homo sapiens

<400> 917
gaattcggcc aaagaggcct actcatacag ggacagccac catctgggtc aaggaagtct 60
gggttccctg ctggtgggct ccatcctgcg atggagtgaa ccaggcgaga aaggatgacg 120
atgttcttca tgttgcacct ggacatgccc caggaacaga gacttgccca ggtggcaaca 180
ctggcacaga tgttgacggc tgcccaactg gtgccacact gagcagggag ccttgtgctg 240
cacagggctg ggccctctct ccagtttcct tcctgcaggc atccaaatac cctggaaggg 300
atttaacccc tgaattccag agggaagaaa gaagaacagt gaagaagtag aactggtttc 360
tgtatgggga gaggaaagtc ttagggacag ctgcaggcgg ggtctcaggc tgctccttgg 420
caccagctac acagtagtga gctttcccag ctttaccgat gaggaagaag ttcaaataga 480
tagacttcag cattttaatt attttcctat aaatgtattt atgtgtagta tgctagcacc 540
agccagtaag ctgtgccaca catatgaatg ggaaagcgag gcagttgtgc tcgtgtgagt 600
ttctgcaggc ttgtgggtaa ttaccttgtg tgcacgcctg cacgtgcaga atagtcactt 660
tctgctggtc agtttcttta tccacccatg gtgccccaac actcgag 707

<210> 918
<211> 509
<212> DNA
<213> Homo sapiens

<400> 918
gaattcggcc aaagaggcct agaggatagt tagaggtctc agccacagaa atacattgtt 60
gtgttctgct gttataactt aatttcaagg gtttcacaca aacactgaac ttgaacatag 120
aaaccacttt tgttaagctg tggagttatt tttttaatac aattacttcc caaaacaata 180
ttttctaaat tagtcatctc ccaagttctt tggcctcaat gtccttattt gtaaaataag 240
aaaattgaat tcgatcattt ctaaggatct gccaagaagc accaattgca gggatctggg 300
attgttgtag tttaatgttc cctgcagtaa atgagtggtt ggccacaagc cgatatcttc 360
agtaccacca agctgacttt ttggtttctt ccctcctctg tccttcctgg gttcttgcaa 420
gagatgtaga aatacagtct tatcttacta ggaggctaac tttagggagg catagcttct 480
gaagatatcc tcaatctctt tgcacttcg 509

<210> 919
<211> 376
<212> DNA
<213> Homo sapiens

<400> 919
gaattcggcc aaagaggcct agagaactaa aaggaaattc agtttggatg aattagcagg 60
tcctggagct gaaggcccct caaatttgaa atccaaaata aataaagtgt cttgtgaatc 120
tggtcagcca gtgaaatcac aggggaaagg tgaagtggcc agtacaccct ctgacaattt 180
ggatcctaag ttgactgccc ttgagccaag taagaccaca ggggctccca tttaccctgg 240
cttccccaaa gtcacagagg ttcatcatga gcagaaagcc tcaaactctt cagcatctca 300
gagaagctta cagatgttta aggtgaccat gtccaggatt ctgaggctca aaatacagat 360
gcaggaaaaa ctcgag 376

<210> 920
<211> 529
<212> DNA
<213> Homo sapiens

<400> 920
gaattcggcc aaagaggcct aagaaacaca aagaaagtta gaacaactcc gggcagagct 60
ggatgagatg tatgggcagc agatagtgca aatgaaacaa gaattaataa gacaacacat 120
ggcacagatg gaggaaatta aaacacggca taagggagaa atggagaatg ctttaaggtc 180
atattcaaat attacagtta atgaagatca gataaagtta atgaatgtgg caataaatga 240
actgaatata aaattgcaag atactaactc tcaaaaggaa aaactcaagg aagaactagg 300

actaatttta gaagaaaagt gtgctctaca gagacagctt gaagaccttg ttgaagaatt 360
gagcttttca agggaacaga ttcagagagc tagacagaca atagctgaac aagaaagtaa 420
acttaatgaa gcacataagt cccttagtac agtggaagat ttgaaagctg agattgtttc 480
tgcatctgaa tccagaaagg aactagaatt aaaacatgaa gctctcgag 529

<210> 921
<211> 651
<212> DNA
<213> Homo sapiens

<400> 921
gaattcggtc aaagaggcct agaaaatttg aagatggtgt ccacttctca gctccttgga 60
cttttgcttt tctggacttc agcctccaga tgtgacattg tgatgactca gtctccagcc 120
accctgtctg tgactccagg agatagagtc tctctttcct gcagggccag ccagagtatt 180
agcgactact tacactggta tcaacaaaaa tcacatgagt ctccaaggct tctcatcaaa 240
tatgcttccc aatccatctc tgggatcccc tccaggttca gtggcagtgg atcagggtca 300
gatttcactc tcagtatcaa cagtgtggaa cctgaagatg ttggagtgta ttactgtcaa 360
aatggtcaca gctttccgta cacgttcgga gggggggacca agctggaaat aaaacgggct 420
gatgctgcac caactgtatc catcttccca ccatccagtg agcagttaac atctggaggt 480
gcctcagtcg tgtgcttctt gaacaacttc taccccaaag acatcaatgt caagtggaag 540
attgatggca gtgaacgaca aaatggcgtc ctgaacagtt ggactgatca ggacagcaaa 600
gacagcacct acagcatgag cagcaccctc acgttgacca aggacctcga g 651

<210> 922
<211> 210
<212> DNA
<213> Homo sapiens

<400> 922
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ggaagacaaa tgaaaatgca cttttcaacg gtggttatat taacaggttg gatgataatt 120
ggatgcagca caactgatgc tccaccaact acagctacaa ctacagatgc tacagcagtt 180
aaagattcac cggctacaac atcactcgag 210

<210> 923
<211> 741
<212> DNA
<213> Homo sapiens

<400> 923
gaattcggcc aaagaggcct actttggctt cagaagaggc tgtatttttt tcagattgta 60
ataaccaatt ttggatattt aaatactgtt tatgaaacat ttagtagaat ttattacttc 120
tgttaactac agctagaata aacattggat aaataaaatt catgaaatat agaaaagtat 180
ctacaggaaa atgaatcatt aatttcccaa tttcagaggt gatcactgtg cattttata 240
aatatttaca cagatatttt tcttacataa ttgaaatcca ttgtaaagtt tttatttaat 300
atattgtaag cattttcttt gtcatgaatt attccaacgt aattttaatg gctacatgag 360
aataccttct ttaacaaatc ttgtattgtt aaatatgtag atttttggaa agtgtttttg 420
attatcaaga aaagctgaca tatttttctt aagtcccatg gaagacttga gtttgaaaga 480
aaatagcaaa ttgtgggttc ttaaacaaag aaatgtgttc tttagtaaat tagctttcag 540
ttaatatttc agtcagtata attcacgaac tgaaatctgt ctgaaacagt ttacacatat 600
tttcaaatct ttaagacata tttttcacaa gtgctttgcc atgagttgta ataattacat 660
aataaataac actatctcag aaaaggaaat atgtcatcat cttaagctac attattaaga 720
gattataata taaaactcga g 741

<210> 924
<211> 617
<212> DNA
<213> Homo sapiens

<400> 924

gaattcggcc aaagaggcct acagaatcct aactatttct gaggaaactg tccaaaatgt 60
ggctgctttt aacaatggca agtttgatat ctgtactggg gactacacat ggtttgtttg 120
gaaaattaca tcctggaagc cctgaagtga ctatgaacat tagtcagatg attacttatt 180
ggggataccc aaatgaagaa tatgaagttg tgactgaaga tggttatatt cttgaagtca 240
atagaattcc ttatgggaag aaaaattcag ggaatacagg ccagagacct gttgtgtttt 300
tgcagcatgg tttgcttgca tcagccacaa actggatttc caacctgccg aacaacagcc 360
ttgccttcat tctggcagat gctggttatg atgtgtggct gggcaacagc agaggaaaca 420
cctgggccag aagaaacttg tactattcac cagattcagt tgaattctgg gctttcagct 480
ttgatgaaat ggctaaatat gaccttccag ccacaatcga cttcattgta aagaaaactg 540
gacagaagca gctacactat gttggccatt cccagggcac caccattggt tttattgcct 600
tttccaccaa tctcgag 617

<210> 925
<211> 238
<212> DNA
<213> Homo sapiens

<400> 925
gaattcggcc aaagaggcct aattccataa aaatactaaa ttaaaatatt tcaagaagga 60
aagaaggtta atctctgaga aactaataag agataaaata gcagtcaatg agtagagatg 120
cccgcatgga gatctttgct cacaaaacag tcctgctaag tgaaatagtc atagtaatta 180
caataataag tatgatggta gctaaacatt taatgagtac ctattatagg ccaaactc 238

<210> 926
<211> 737
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (61)

<220>
<221> unsure
<222> (117)

<220>
<221> unsure
<222> (124)

<220>
<221> unsure
<222> (151)

<220>
<221> unsure
<222> (178)

<220>
<221> unsure
<222> (201)

<220>
<221> unsure
<222> (211)

<220>
<221> unsure
<222> (352)

<400> 926
gaattcggcc aaagaggcct agtggaaacc atccacagga gagatgtgtg gacagacaca 60
nagggatgta ggggtgaggg tggaaaccat ccacaggaga gatgtggaca gacacanagg 120
gatntagggg tgagggtgga aaccatccac naggagagat gtgtggacag acacagangg 180
atgtaggggt gagggtggaa nccatccaca ngagaggtgt gtggacagac acagagggat 240
gtaggggtga gggtggaaac catccacagg agaggtgtgt ggacagacac agagggatgt 300
aggggtgagg gtggaaacca tccacaggag aggtgtgtgg acagacacag anggatgtag 360
gggtgagggt ggaaaccatc cacaggagag atgtgtggac agacacagag ggatgacgag 420
gtgaacagat ggaaaattca gatcaaaagc tgcaaaggag aatacttgat tttgctttct 480
gtagaacttt tataaactta gttgccagat aatgtaaccc atgaaatttg aagtatatac 540
tgctctccaa aatggagttg ctttgttaaa ttaagaaata ctatactgtt tttaaaatga 600
gatatgtaat ggatggtttt atgcttacaa aatttgacct gctacaggcg ttttgttttg 660
gtttggtttg gtttggtttg gtttgttttt tccctgaggg gataaaggga gtcaggatca 720
acagtactgg cctcgag 737

<210> 927
<211> 829
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (443)

<400> 927
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acgggtactg aaacgtaatg agtaatgtct agagattttc tccacaggat agaaacaaag 120
ctcaaagagg cagcaagttg aagaaagtgt gacactgttt tatttttagg atttttttcct 180
cttttttaaa ataaatatac gtgtagagag acagggtctc cctttgttgc ccaggctgat 240
ctcgaactcc tgagctcaag ctgtcctccc acctcagcct cccaagggct gggatcactg 300
gcatgagcct ctgcacccag cccttaggat ttttttttct tttttaaaat tttaattatt 360
ttatatatat ttttaagttc cagggtacat gtgcaggatg tgcaggtttg ttacataggt 420
aaacgtgtgc catggtggtt tgntgcacct gtcaccctgt cactaggcat gaggaccagc 480
atgcattagc tcttttccct aatgttctcc atgccccctg gcccagccct ctcccaacag 540
gccccagtga gtgttgttcc cctcccggga ttttttttct taaggaaaca caccacatca 600
ggcgttgaag tgagtgtatt gactgtctga ggtttgtgtg cactttttaa ccagaagtca 660
tggctgggga cacaaaagca cctccttgcc tatgtagttt tgttccttta ctgctttaaa 720
caagcaagat gtggtttgca ttcctttcgc tgctggtgtt gttggctttg tgtttctcaa 780
cagaaataac ttgccttgcc tttgctctca aggttgtgaa agccccccca 829

<210> 928
<211> 542
<212> DNA
<213> Homo sapiens

<400> 928
gaattcggcc aaagaggcct aagttttagt tccttgtatt attgagattc agagcttcat 60
tttatgttgg tcattaggtg aatattactc attttccctc aagagaagct cataagtgtg 120
tgtgggtgtg agagcacgat ggtgcctgtg ttctgtgaat gtgtccatat gtgtctgtaa 180
gagagacaga gaccaagaac ttgcccaatt ttagaaatac actaatgtgc agttgttgcc 240
ttttgtctgt attgaaggcc cattgaatga ctaatccagg ctggaagcat tcccatgtgg 300
gtgtctgagt ccatgagcca agcctgaggg gacagtgagt ctccaggtct gccacactgg 360
tgcaccttgc tggcacggtg cctcaggaag gtggcgactc aggtgggcct tgagttatat 420
tttaactcag ctgctcagtt cccagggcac atttctggat cagaacccat gggaaacagg 480
aggtactaag tgcaatgtct tagcattctg caaaatggag atctgttgtc cagcagctcg 540
ag 542

<210> 929
<211> 693
<212> DNA

<213> Homo sapiens

<400> 929
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tcctataatt acagtggaac agaaaattta aaagataaaa agatctttaa tcagttagaa 120
tcaattgttg attttaacat gtcatctgct ttgactcgac aaagttccaa aatgtttcat 180
gccaaagaca agctacaaca caagagccag ccatgtggat tactaaaaga tgttggctta 240
gtaaaagagg aagtagatgt ggcagtcata actgccgcag aatgtttaaa agaagagggc 300
aagacaagtg ctttgacctg cagccttccg aaaaatgaag atttatgctt aaatgattca 360
aattcaagag atgaaaattt caaattacct gacttttcct ttcaggaaga taagactgtt 420
ataaaacaat ctgcacaaga agactcaaaa agtttagacc ttaaggataa tgatgtaatc 480
caagattcct cttcagcttt acatgtttcc agtaaagatg tgccgtcctc attgtcctgt 540
cttcctgcgt ctgggtctat gtgtggatca ttaattgaaa gtaaagcacg ggtgattttt 600
ttacctcagc atgaacataa agataatata caagatgcag tgactataca tgaagaaata 660
cagaacagtg ttgttctaga tggggaactc gag 693

<210> 930
<211> 549
<212> DNA
<213> Homo sapiens

<400> 930
gaatcggcca aagaggccta ataaagtttt tcactcacta tggcaatttt cacaaaacca 60
aagcttttat ttatcttctt cttgatcctc tctttggtcc ttgtatctca atgctatgat 120
caaaacccta ggggttacca agaccctcag gagaaactaa gagagtgcca acaacgttgt 180
gagagacaac aaccaggaca acagaaacag ttgtgcaaac aacgttgtga acaacagtat 240
aggaaagagc aacaacaaca acatggaggg gagactggtg aagatgatct aggcaatcgt 300
gggcctgata agagctacaa aagattgcaa gaatgccaac gtaggtgcca gagtgaacaa 360
cagggccaac gactacaaga gtgtcaacaa cgttgtcaac aagagtacca aagagagaaa 420
ggacaacacc aaggtgaaac taacccacag tgggaacaac aagaaaaatc aaacaatcca 480
tacttattcg agtctcagcg attcaggtct cgattcagag ctagtcatgg tgatttccga 540
atcctcgag 549

<210> 931
<211> 487
<212> DNA
<213> Homo sapiens

<400> 931
gaattcggcc aaagaggcct actaagataa ctttggtatt taattctgtc ttacaggatg 60
ttgttcactt atcaaatagt gttacctaaa gatataatga gtgtgctatt ttatcagatt 120
attgatgaaa gtataaaatt aacatcatca gctataccct gcagatcttc ataacatgat 180
ttgattaccc catctgtcac cattaggcaa gaccctaata tatttcataa aaatcagcag 240
cactttaagg ggaaactctg ctgccatgaa ggaaaatata ttaatatttt ctggcttgaa 300
aaattagtgt tttttgtttg tttgtttttt aataaatttg gctttctatg tgattttatg 360
tgtaggtttg ctctatgctg taggaggtta tgatggagca tcacgtcagt gtcttagcac 420
agtagaatgc tataatgcta caacaaatga gtggacctat atagcagaaa tgagcaccag 480
gctcgag 487

<210> 932
<211> 169
<212> DNA
<213> Homo sapiens

<400> 932
gaattcgcgg ccgcgtcgac cctgcctcga gtgggaaatc atgcaactac tcagaatgtg 60
tcctcctcat ctaatgctca tctgtttaat ggtgatgcct cgcgtacagg atctggttac 120
ctgtgcagtt gtgaataccc agaggttggg cagatcagtg tctctcgag 169

<210> 933

<211> 877
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (68)

<220>
<221> unsure
<222> (255)

<220>
<221> unsure
<222> (309)

<220>
<221> unsure
<222> (320)

<400> 933
gaattcggcc aaagaggcct acacagataa aattcgagag catggggagc cttttatcca 60
ggcgtgtntg actttttaa agagacggtg tccttctatt ttgggcggac ttgccccaga 120
aaaagaccag cccaaaagtg ctcaacttcc tccagaaact ttggcgacaa tgttggcctg 180
tctgcaagct tgtgcaggga gtgtttctca ggagctatca gaaactatcc tcaccatggt 240
agccaattgc agtantgtta tgaataaggc cagacaacca ccacctggag ttatgccaaa 300
aggacgtcnt cctagtgctn gcagcttaga tgccatttct cctgttcaga ttgaccctct 360
tgctggaatg acatctctta gtataggtgg ttcagctgcc cctcacaccc agagtatgca 420
gggttttcct ccaaatttgg gttctgcatt cagtacccct cagtcaccag caaaagcatt 480
tccacccctt tcaaccccca atcagaccac tgcattcagt ggtattggag gactttcatc 540
acagcttcca gtaggtggtc ttggcacagg cagcctgact ggtataggaa ctggtgctct 600
tggactccct gcagtgaata acgaccottt tgtacagagg aaactgggca cctctggact 660
gaatcagcct acattccagc agagtaagat gaaaccttcg gacttgtctc aggtgtggcc 720
agaggcaaac cagcacttta gtaaagagat agatgatgaa gcaaacagct atttccagcg 780
aatatataat catccaccac atccaaccat gtctgttgat gaggtattag aaatgctgca 840
gagatttaaa gactctacta taatgaggga actcgag 877

<210> 934
<211> 194
<212> DNA
<213> Homo sapiens

<400> 934
gaattcgcgg ccgcgtcgac gggcagggga ggtgataagg ccttagaact gggaatctag 60
attcgggatc tgatcacttg actgagcaaa cttgctcttt ccttttattt aaaacacaaa 120
acaaaacttc ctgaactaaa gtcacagtac agaatagaat gggatggaca gaaagactca 180
agagggcgct cgag 194

<210> 935
<211> 161
<212> DNA
<213> Homo sapiens

<400> 935
gaattcggcc aaagaggcct agggcagaga aaagcagtgc ttagagaaaa atttatagga 60
ctgactgcat atattaggaa agaagatcta aaatcaatca tctaagcttc catttagaa 120
aactagaaga gcaaatgaaa cccaaagtaa gtgttctcga g 161

<210> 936
<211> 108

<212> DNA
<213> Homo sapiens

<400> 936
atgcgcagcg ggctgaatac atccacttct gcacgtggtg gaaaaaaggg acagtgtcca 60
ctggggccta gtggccagtg gaaccacacc caacactgca ggctcgag 108

<210> 937
<211> 214
<212> DNA
<213> Homo sapiens

<400> 937
gaattcgcgg ccgcgtcgac ctcaagcaca gctttcttca caaaagatgg agtctttctc 60
tgctgtgcca cccaccaaag agaaagtgtc cacacaggac cagcccatgg caaacctatg 120
taccccatct tcaactgcaa acagttgcag tagctctgcc agcaacaccc cgggagctcc 180
agaaactcac ccatccagta gtcccacccct cgag 214

<210> 938
<211> 512
<212> DNA
<213> Homo sapiens

<400> 938
gaattcggcc aaagaggcct agttgtccag attggtcttg aactcctggg ctcaagccgt 60
ccacctgcct cagcctccca aagcgttgag attacacaca ggagccacca ctcccagctg 120
ctaatttgtt tttatacttt cttttgtgtt tattaaactc atttttattt aatatgtagg 180
atagagttag tagttatcaa ataagtggca gcttttaccg catcgagatt gttaacttaa 240
cctagttgaa cactagaggg acttcaaact aatcactgaa gtttgagttc agtagtatat 300
tcagtagtat atactttgtt taaaagtgca gaaccacaca gtttttttcc cccaactctg 360
tggttttcat aagactaagt attatgccta aaatttacc tggtaactta tttggttaat 420
taattctcag gttaatagac catatataaa atgtaacctc tgccaatata tgtatatcaa 480
agcaaaaaac ttttgttcat ggccccctcg ag 512

<210> 939
<211> 160
<212> DNA
<213> Homo sapiens

<400> 939
gaattcggcc aaagaggcct agcagaacta ctatttgaaa agatcacaga ctttggggtt 60
gaattccagc tctgcttctt acttgttgca ggactttgga ccctctaagc ctcattttcc 120
tcatataaaa atgagaatag gccgagcccg gttgctcgag 160

<210> 940
<211> 121
<212> DNA
<213> Homo sapiens

<400> 940
gaattcgcgg ccgcgtcgac cgagcagggg gcctttatat caaaattttc tgaaaccatt 60
cctgcaggac tttatgtgga tccgtatgag ttggcttcat tacgagagag cgttcctcga 120
g 121

<210> 941
<211> 208
<212> DNA
<213> Homo sapiens

<400> 941

gaattcggcc aaagaggcct agagaagctg atcagtaagt ttgacaagct tccagtaaag 60
atcgtacaga agaatgatcc atttgtggtg gactgctcag ataagcttgg gcgtgtgcag 120
gagtttgaca gtggcctgct gcactggcgg attggtgggg gggacaccac tgagcatatc 180
cagacccact tcgagagcaa gactcgag 208

<210> 942
<211> 291
<212> DNA
<213> Homo sapiens

<400> 942
cctaaaccgt caagcgattc tgcctcagcc tcccgagtag ctgggattac aggcatgtgc 60
taccattcct ggctaatttt tgtactttta gtagagacag ggttttgcca tgttggccag 120
gctggtctcg aacttccgac ctcaagtgat ccacccactt tggcctccca aagtgctggg 180
atgacgggtg agccactgca cctggccaag agggctgata gtaaattatt gcaagtgaaa 240
aaactaacga tgcaaatgaa aggggtagct atagaagcca agcccctcga g 291

<210> 943
<211> 200
<212> DNA
<213> Homo sapiens

<400> 943
gaattcgcgg ccgcgtcgac ataaaatcca aatacaattt tttttttttg tagaaaaaag 60
agaaaaaagc agggtaagaa gagaaagtgg tggagctgag ctgggcagag tggctctttt 120
agaagcgatg acatttacac ataggtcact atggagaggg ccatgcagac acctggagga 180
gtgccaccaa caggctcgag 200

<210> 944
<211> 895
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (642)

<400> 944
gaattcggcc aaagaggcct aagaaaacca actggaaaaa aaaatgaaat tccttatctt 60
cgcatttttc ggtggtgttc accttttatc cctgtgctct gggaaagcta tatgcaagaa 120
tggcatctct aagaggactt ttgaagaaat aaaagaagaa atagccagct gtggagatgt 180
tgctaaagca atcatcaacc tagctgttta tggtaaagcc cagaacagat cctatgagcg 240
attggcactt ctggttgata ctgttggacc cagactgagt ggctccaaga acctagaaaa 300
agccatccaa attatgtacc aaaacctgca gcaagatggg ctggagaaag ttcacctgga 360
gccagtgaga ataccccact gggagagggg agaagaatca gctgtgatgc tggagccaag 420
aattcataag atagccatcc tgggtcttgg cagcagcatt gggactcctc cagaaggcat 480
tacagcagaa gttctggtgg tgacctcttt cgatgaactg cagagaaggg cctcagaagc 540
aagaaggaag attgttgttt ataaccaacc ttacatcaac tactcaagga cggtgcaata 600
ccgaacgcag gggcggtgg aagctgccaa ggtgggggct tnggcatctc tcattcgatc 660
cgtggcctcc ttctccatct acagtcctca cacaggtatt caggaatacc aggatggcgt 720
gcccaagatt ccaacagcct gtattacggt ggaagatgca gaaatgatgt caagaatggc 780
ttctcatggg atcaaaattg tcattcagct aaagatgggg gcaaagacct acccagatac 840
tgattccttc aacactgtag cagagatcac tgggagcaaa tatccagaac tcgag 895

<210> 945
<211> 296
<212> DNA
<213> Homo sapiens

<400> 945

gaattcgcgg ccgcgtcgac tgaattctag acctgcctcg agccatgcag ctgtgctggg 60
tgatcctggg cttcctcctg ttccgaggcc acaactccca gcccacaatg acccagacct 120
ctagctctca gggaggcctt ggcggtctaa gtctgaccac agagccagtt tcttccaacc 180
caggatacat cccttcctca gaggctaaca ggccaagcca tctgtccagc actggtaccc 240
caggcgcagg tgtccccagc agtggaagag acggaggcac aagcagagat ctcgag 296

<210> 946
<211> 481
<212> DNA
<213> Homo sapiens

<400> 946
gaattcggcc aaagaggcct agtctttagg gagttccctt gatctcttga aagagacaca 60
gccccattta cattatttcg tggatttcac cagcatagta tagttttttt ctgtaagtcc 120
ctcattctta tgtaataaca ggtggaactg aggtttgaag aacctcagtg gcccatcctg 180
atgacattgg agactcaaag agacaagaga gagtagggtt taaaacctga gctttaagac 240
tcccactagc ttcgtgtcct ttggcatgtt aacgtgcctc agtttcctca tctgtataat 300
ggggatatat gaaaggcacc agtcctaagg tgaacattaa gtgagatgat tctagttaca 360
gacttagaac aatttccagc acatagttaa atatccagga aattctggta ctgttatgtg 420
tgggtgagct gacctggatg tagatgtttt cctctctctt gctgacccct ccgccctcga 480
g 481

<210> 947
<211> 292
<212> DNA
<213> Homo sapiens

<400> 947
gaattcggcc ttcatggcct aggagaggaa cataactgaa acgtttatag taaggattta 60
agagccaaga gggtcagaca cacacacaca cccatacaca cacgcacaga atgagaaatg 120
gagaggcata ttttgacatt cttccattca tctctctgcc tattcattca ttcaaaaatg 180
cttattgatc gcctactcga tgagacgcac tgttctagcc actggggctc cagcagtgaa 240
caggatgagc aaggtccttg tttctctaaa gcttacgctc attccactcg ag 292

<210> 948
<211> 690
<212> DNA
<213> Homo sapiens

<400> 948
gaaagaaaat acttaaaggg atcaataatg gtgtcttctg gttgcagaat gcgaagtctg 60
tggtttatca ttgtaatcag cttcttacca aatacagaag gtttcagcag agcagcttta 120
ccatttgggc tggtgaggcg agaattatcc tgtgaaggtt attctataga tctgcgatgc 180
ccgggcagtg atgtcatcat gattgagagc gctaactatg gtcggacgga tgacaagatt 240
tgtgatgctg acccatttca gatggagaat acagactgct acctccccga tgccttcaaa 300
attatgactc aaaggtgcaa caatcgaaca cagtgtatag tagttactgg gtcagatgtg 360
tttcctgatc catgtcctgg aacatacaaa taccttgaag tccaatatga atgtgtccct 420
tacatttttg tgtgtcctgg gaccttgaaa gcaattgtgg actcaccatg tatatatgaa 480
gctgaacaaa aggcgggtgc ttggtgcaag gaccctcttc aggctgcaga taaaatttat 540
ttcatgccct ggactcccta tcgtaccgat actttaatag aatatgcttc tttagaagat 600
ttccaaaata gtcgccaaac aacaacatat aaacttccaa atcgagtaga tggtactgga 660
tttgtggtgt atgatgatgc tatactcgag 690

<210> 949
<211> 337
<212> DNA
<213> Homo sapiens

<400> 949
gaattcggcc aaagaggcct aagtacccct gacgacactg aaaggcttgt tgagatggaa 60

caagtcctct cttcacttaa caagatgaga aagacaatag gtggtgtggc tctctggcga 120
cagcaaatct gcgcaattgc aagggttcgc ttgttaaagt taaagcatga aagaaaagct 180
cttttagcac tgctattaat tctaatggct ggattttgcc ctcttcttgt ggagtatacc 240
atggtgaaaa tatatcaaaa cagttacacc tgggaacttt ctcctcattt gtatttcctt 300
gctcctggac aacaaccaca tgaccctccc actcgag 337

<210> 950
<211> 334
<212> DNA
<213> Homo sapiens

<400> 950
gaattcggcc ttcatggcct acggaatgaa gactacaagg agatcaccca gaaactctgc 60
ttcccaatgg ggagaaatgt tttttctcat gattatgtat tttggtgtgg cgatttcaac 120
taccgcattg atcttactta tgaagaagtc ttctattttg ttaaacgcca agactggaag 180
aaacttctgg aatttgatca actacagcta cagaaatcaa gtggaaaaat ttttaaggac 240
tttcacgaag gagccattaa ctttggaccc acctacaagt atgacgttgg ctcagccgcc 300
tacgatacaa gcgacaaatg ccgcacccct cgag 334

<210> 951
<211> 140
<212> DNA
<213> Homo sapiens

<400> 951
gaattcggcc aaagaggcct acagccttga tattcagggt ggattgtaaa atataaattt 60
ttgtgagatt tcaaagatta agattatttt gataacatta tttacagatt taaaagatgt 120
ggttatcacg cgctctcgag 140

<210> 952
<211> 180
<212> DNA
<213> Homo sapiens

<400> 952
gaattcgcgg ccgcgtcgac aaagtaaatc cagatgaatt tgctgtggca cttgacgaaa 60
ctcttggaga ctttgcgttc ccagacgaat ttgtctttga tgtttgggga gtcattggtg 120
atgccaaacg aagaggatta tgatgtgtac actccatctc tgaagaaaca acccctcgag 180

<210> 953
<211> 528
<212> DNA
<213> Homo sapiens

<400> 953
gaattcggcc aaagaggcct agaaagagag ataactggat ttaagaacct cttaaaaatg 60
acaagaaaga agttaaatga atatgaaaat ggagaattta gtttccatgg agatttaaaa 120
actagtcaat ttgaaatgga tattcagatt aataagctaa aacataaggt tgaagaagaa 180
aggaaaaaac acagaaataa tgaaatggaa gtatcagcaa acatacatga tggtgctact 240
gatgatgctg aagatgatga tgatgatgat ggattaattc aaaaaagaaa gagtggagaa 300
actgatcatc agcaatttcc caggaaggaa aataaagagt atgctagtag tggtcctgcc 360
ttgcaaatga aggaagtaaa gagcactgaa aaagaaaaac ggacctcgaa agaatctgtg 420
aattcaccag tgtttgggaa ggccagttta ctaactggtg gcctgctaca agtggatgat 480
gacagcagtt taagtgaaat agatgaggat gaaggaaggc tcctcgag 528

<210> 954
<211> 132
<212> DNA
<213> Homo sapiens

<400> 954
gaattcggcc aaagaggcct attagaatat aattaacatt ttgttgtaaa cattttaatc 60
tgaacaaaac ccttttttatt tggagactct ctgtgagaaa caatgctcca cgtttcctgg 120
ctgtgtctcg ag 132

<210> 955
<211> 756
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (135)

<220>
<221> unsure
<222> (188)

<400> 955
gaattcggcc aaagaggcct aactttacag ggacaaatca tagaacagtc aggtacaatg 60
actggtggtg gaagcaaagt aatgaaagga agaatgggtt cctcacttgt tattgaaatc 120
tctgaagaag aggtnaacaa aatggaatca cagttgcaaa acgactctaa aaaagcaatg 180
caaatccnag aacagaaagt acaacttgaa gaaagagtag ttaagttacg gcatagtgaa 240
cgagaaatga ggaacacact agaaaaattt actgcaagca tccagcgttt aatagagcaa 300
gaatatttga atgtccaagt taaggaactt gaagctaatg tacttgctac agcccctgac 360
aaaaaaaagc agaaattgct agaagaaaac gttagtgctt tcaaaacaga atatgatgct 420
gtggctgaga aagctggtaa agtagaagct gaggttaaac gcttacacaa taccatcgta 480
gaaatcaata atcataaact caaggcccaa caagacaaac ttgataaaat aaataagcaa 540
ttagatgaat gtgcttctgc tattactaaa gcccaagtag caatcaagac tgctgacaga 600
aaccttcaaa aggcacaaga ctctgtcttg cgtacagaga aagaaataaa agatactgag 660
aaagaggtgg atgacctaac agcagagctg aaaagtcttg aggacaaagc agcagaggtc 720
gtaaagaata caaatgcccg cgaggttctc cctata 756

<210> 956
<211> 656
<212> DNA
<213> Homo sapiens

<400> 956
gaattcggcc aaagaggcct aaaatgttaa aaaatcaagc aacttctgct acttctgaaa 60
aggataatga tgatgaccaa agtgacaagg gtacttatac cattgagtta gagaatccca 120
acagtgagga agtggaagca agaaaaatga ttgacaaggt gtttggagta gatgacaatc 180
aggattataa taggcctgtt atcaacgaaa aacataaaga tctaataaaa gattgggctc 240
tcagttctgc tgcagcagta atggaagaaa gaaaaccact gactacatct ggatttcacc 300
actcagagga aggcacatct tcatctggaa gcaaacgttg ggtttcacag tgggctagtt 360
tggctgccaa tcatacaagg catgatcaag aagaaaggat aatggaattt tctgcacctc 420
ttcctttaga gaatgagaca gagatcagtg agtctggcat gacagtgaga agtactggct 480
ctgcaacttc cttggctagc cagggagaga gaaggagacg aactcttccc cagcttccaa 540
atgaagaaaa gtctcttgag agccacagag caaaggttgt aacacagagg tcagagatag 600
gagaaaaaca agacacagaa cttcaggaga aagaaacacc tacacagata ctcgag 656

<210> 957
<211> 716
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (54)

<400> 957
gaattcggcc aaagaggcct aaggtgagag taatgactaa ctccaaagat tgtnctggaa 60
aaaaaagaga agaccccaaa ccaggcccta aaaaaccaaa agagaaagtg gatgctctat 120
cacagtttga tctcaacaat tatgcaagtg ttgttataat tgatgatcat cctgaagtaa 180
cagtaattga agatccccag tcaaatttga atgatgatgg ttttactgaa gtggtatcca 240
aaaaacaaca aaaacgttta caggatgaag aacgccgaaa gaaggaagaa caagtcatac 300
aggtctggaa caaaaagaat gcaaatgaaa aaggaagaag ccagacttct aagcttcctc 360
caagatttgc caaaaaacag gctacaggga tccagcaagc acagtcttca gcctcagttc 420
cacctctagc ttcggctcca cttccacctt caacctcagc ttcagttcca gcctcaacct 480
cagctccact tccagcaacc ttaactccag ttccagcctc aacctcagct ccggttccag 540
cctcaacttt agctccagtt ctggcctcaa cctcagctcc agttccagcc tcacccttag 600
ctccagtttc agcctcagcc tcagtctcag cttcagttcc agcctctact tcagctgcag 660
ctataacctc ttcttcagct ccagcctcag ccccagctcc aacccccaca ctcgag 716

<210> 958
<211> 432
<212> DNA
<213> Homo sapiens

<400> 958
gaattcggcc aaagaggcct acaaaccacc atttttaaca tgcaagcggt agttccatta 60
gccagtgtta ttgtgaaaga atctctgaca gaagaagatg tgttaaactg tcaaaaaaca 120
atatacaact tagttgatat ggaaagaaaa aatgatcctc tacctatttc cacagttggt 180
acaagaggaa agggccctaa aagagatgaa caataccgta tcatgtggaa tgaattagaa 240
acccttgtca gagcccatat caacaactca gagaaacatc aaagagtctt ggaatgtctg 300
atggcatgca ggagcaaacc cccagaagag gaagaacgaa agaaacgagg aagaaagagg 360
gaagacaaag aggacaagtc agagaaagca gtgaaagatt atgaacagga aaagtcttgg 420
caagatctcg ag 432

<210> 959
<211> 481
<212> DNA
<213> Homo sapiens

<400> 959
gaattcggcc aaagaggcct atgatttttc agacctgctc ctcagtaata atactagcta 60
gtcagcattc acgcctacca ggacacaaaa atcctcttca aaactactca gaaaagaaag 120
tcattactca ggaatgatgt ccattcagga gaaatcaaaa gagaattcct ccaaagttac 180
taaaaaaagt gacgataaga attcagaaac agaaattcag gattctcaaa agaatctagc 240
aaaaaaatca ggtccaaagg agactataaa atcacaggct aaatcttcca gtgaaagtaa 300
aataaatcag ccagaattgg aaacacgcat gagtacaagg tcatcaaagg cagcatctaa 360
tgataaagct actaaatcca ttaataaaaa tacggtgact gtgaggggat attcacaaga 420
atctacaaaa aagaaattat ctcagaaaaa attagtacat gaaaacccta aagcactcga 480
g 481

<210> 960
<211> 123
<212> DNA
<213> Homo sapiens

<400> 960
gaattcggcc aaagaggcct actgtgggtt ttggtaaggt gtctgtggag attctctggc 60
taccctagaa aaaaagaaat attcatgcta ccattagttt tcctttgtaa ggttaatctc 120
gag 123

<210> 961
<211> 324
<212> DNA
<213> Homo sapiens

<400> 961
gaattcggcc aaagaggcct acgagtcttg tgtggatcaa acattatgtt atttggtgtg 60
actagcagga cgccactgac tgtgcccttg ccaatggtga tatatttgca attaatttta 120
agaaatttct cagtaaaggc ttcttcttct tcagaagttg aagacacaac tctcgcaggc 180
cgaataccgc tcacagtcga tgccgggggt gcttcttttg gatgggctac atctggagtc 240
gtggttttat caaattcagc ctcggatgac gttggcgaca gagggcttac agggctgagg 300
gatggggaac tctcaaccct cgag 324

<210> 962
<211> 517
<212> DNA
<213> Homo sapiens

<400> 962
gtggaaagaa aagtttgaac aagctgaaaa aagaaaactt caagaaacaa aagagttaca 60
gaaagcagga attatgtttc aaatggacaa tcatttacca aaccttgtta atctgaatga 120
agatccacaa ctatctgaga tgctgctata tatgataaaa gaaggaacaa ctacagttgg 180
aaagtataaa ccaaattcaa gccatgatat tcagttatct ggggtgctga ttgctgatga 240
tcattgtact atcaaaaatt ttggtgggac agtgagtatt atcccagttg gggaagcaaa 300
gacatatgta aatggaaaac atattttgga aatcacagta ttacgtcatg gtgatcgagt 360
gattcttggt ggagatcatt attttagatt taatcatcca gtagaagtcc agaaaggaaa 420
aaggccatct ggaagagata ctcctataag tgagggtcca aaagactttg aatttgcaaa 480
aaatgagttg ctcatggcac agagatcaca actcgag 517

<210> 963
<211> 163
<212> DNA
<213> Homo sapiens

<400> 963
gaattcggcc aaagaggcct acagtttggt agcttatcct tttttatata agttatattt 60
ttcaaatatt agtatttgaa tgagtccaga tatatacttt gcccatcctg tctgcttcat 120
atttttttta gcagacctca tttttagaag tgaaaacctc gag 163

<210> 964
<211> 181
<212> DNA
<213> Homo sapiens

<400> 964
gaattcggcc aaagaggcct actttccaaa tccggttgtc tattttctgc cctccacttg 60
cttgaagtct cagccgcctt caactcaatt aacaattctc cccataagtc acttttcttt 120
ggctttccag atgcatagaa gtctcctctg ccagatcctt ctcctcttgt ctgacctcga 180
g 181

<210> 965
<211> 138
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (56)

<220>
<221> unsure
<222> (104)

<400> 965
gaattcggcc aaagaggcct agtggagatg gataatagaa aaattctctg tatctngatt 60

gcagtggtga ttgcacaggc acacactctc acacgctctc tcangatagg aggctcctct 120
ccacccctcag ctctcgag 138

<210> 966
<211> 134
<212> DNA
<213> Homo sapiens

<400> 966
gaattcggcc aaagaggcct aagagattag gtgattagtg acaatcagtt gtaacttagc 60
actgttaggc tgcaaacccc ttgctccttc ctttccacca aactatgttg attttcctcc 120
cttacctcct cgag 134

<210> 967
<211> 205
<212> DNA
<213> Homo sapiens

<400> 967
gaattcggcc aaagaggcct aggttggtgg aagtttgggt tgtttctact ctttggtcat 60
tatgaacact tgtgtacaat tgtttatgtg gacatatgtt ttcatttctc tcagaaataa 120
tggaattgct gcccctgttt tcagtcttca aaaaatggag aaagtgaatt gccacctaaa 180
ctttggtatc accggtcccc tcgag 205

<210> 968
<211> 190
<212> DNA
<213> Homo sapiens

<400> 968
gaattcggcc aaagaggcct aagataaatt aacagaacat ttgtctattg tctcttattt 60
atatattcat tcattcattt cagtgggctg atggataggg gtataatcca atactatgtt 120
atttattttg ttgctcaaat cattccagct atggccactg gaagctcttt cagttgctcc 180
ccatctcgag 190

<210> 969
<211> 209
<212> DNA
<213> Homo sapiens

<400> 969
gaattcggcc aaagaggcct agttgctttc tgtttgtttt tctttcaatg gtcaggcccc 60
tcttctgtag ggctgttgtg gtttgctggg cattcacttc aggcactatt catctggctc 120
gctcctgtgc ctggagccag tcactcaagg aggctggaaa acagcaaaga tgggtgcttc 180
ctccttcctc tgggaactct gacctcgag 209

<210> 970
<211> 562
<212> DNA
<213> Homo sapiens

<400> 970
gaattcggcc aaagaggcct actcacttct gccccgggca ctgcgtccag cagcagaggg 60
gacagggggc aggtgtgtga ctgggttcct gggtacccag gcctgaccag agggagcggg 120
agggcagagg tgaggagggg gaagatgttt ctgggcctac caaggttcaa caagagaacg 180
gagctgggaa tgtgactgct ggagcctgag aggtggagga gttctgatcc cccgttactt 240
cctagcattt tctcctcttg ccttaaaagt tccctgtatg tgaaacggga agtcctgaga 300
gtgtgtgttg gtggctgtgc gcacgcacac aagacgggag tcaccctgtg cttcctgccc 360
aagatactga cccattgaac cccaaagca tctttctctc cacaaagtcc gtggtgcctt 420
cctggtgggc tgcagacact aatggtgttg gggggtcttg gaacagcttc tctatgtgtg 480

gattcgtgta aatgcgaaga gttcacatat aaagaagtga ctttgattct gtgattatat 540
tgatttggta cacagtctcg ag 562

<210> 971
<211> 171
<212> DNA
<213> Homo sapiens

<400> 971
gaccgtcgat tgaattctag acctgcctcg aaccccagtt tttttttaat ttccgatacc 60
agtaatccct acagaacctc aatgggcatg cagtgctcca tagtttactc ctgttttctc 120
attctgctac taccactcca cccatcaagt gtttctgcta atgaactcga g 171

<210> 972
<211> 119
<212> DNA
<213> Homo sapiens

<400> 972
gaattcggcc aaagaggcct agttttatac cactctttga tcagaagtac ttagaactaa 60
aagtcaactt atcaagctta aagccatagg gttacactat gaaatttaac atactcgag 119

<210> 973
<211> 221
<212> DNA
<213> Homo sapiens

<400> 973
gaattcggcc aaagagagca gaattgttga atcctatgat aattttgtgc ttaatttatt 60
attatttttt tttcatccca ctctgttgcc cagcctggag tacagtggta caatctcggc 120
ttcctgcagc ctctgtcccc cggggttcaa gtgactctcg tgcttcagcc tcccgagtag 180
ctgggactac agacacccgc caccacgccc ggctgctcga g 221

<210> 974
<211> 188
<212> DNA
<213> Homo sapiens

<400> 974
gaattcggcc aaagaggcct aggtcctcgt ttcttttgtc tcatttcatg tcttccatta 60
tagtggtttt aatatgctta ctccccagtc tcttattggc ccacattcaa accatttact 120
taagtagctt tagtgtgtct gagcctgtgt tatctcagcc tgctctgttc acatcagtct 180
ttctcgag 188

<210> 975
<211> 257
<212> DNA
<213> Homo sapiens

<400> 975
gaattcggcc aaagaggcct aaccgtcgat tgaattctag aactgtcctc catcctccga 60
acaagtagag agagcttcac ttcgaagaat tccaagtttt cttgttaatg ctgtatggtt 120
acttcgggct aaagagaact ctgcttctta aaatcctctt gatttcttct tctgggagcc 180
tcgatggccc caggaagcca gcggtcccag tcccgcagcc ttgccccaca accagccacc 240
acccgccaac actcgag 257

<210> 976
<211> 201
<212> DNA
<213> Homo sapiens

<400> 976
gaattcggcc aaagaggcct aaggagcgtg gaagctcaca aatgtgtaga gactgggtag 60
agagcaagaa tctataaact gactccatcc aacagaaatt acaaagtgca agctgcagta 120
ctaagcaaag tggctcacag agtaggggaa gcaagacacc attcctactt aacgatgaaa 180
ccaactcagc tggtactcga g 201

<210> 977
<211> 139
<212> DNA
<213> Homo sapiens

<400> 977
gaattcggcc aaagaggcct agtttttaag gtgaataatg ctcataaaat ttttacagct 60
gtgtcttatg aaattctgtt tcctttttt ggttgcttat atgtattcta taaagacact 120
gaaaggatgc aacctcgag 139

<210> 978
<211> 192
<212> DNA
<213> Homo sapiens

<400> 978
gaattcggcc aaagagtaag tacactgtaa ggttagaaga ggtcttgtcc tcagagaata 60
attaagacta gaaggcgaca ggacaagctt tggggaaaac cattgatgtt tgtttttttg 120
tttgtttgtt tgtttgtttt ggtttttttt gagatgaagt cttgctttgt tgcccgggct 180
gaagtactcg ag 192

<210> 979
<211> 240
<212> DNA
<213> Homo sapiens

<400> 979
gaattcggcc aaagaggcct acgtataacg ttgtaacaat tggtaagata ccaatttaca 60
aatatggaaa tatatattag attcatttgg aggaggttgt atatggtata cgattggcat 120
atgtttttca ttctgaaagt atcagttatt ttcctgttat tatctgtggt aacattgctt 180
gtttttttg ttgttgttga gacagagtct cgctctgtct ctgtcgccca ggcgctcgag 240

<210> 980
<211> 564
<212> DNA
<213> Homo sapiens

<400> 980
gaattcggcc aaagaggcct aaagatattt gaggaaagag cttcctgggt agaagaaatc 60
atacctgcag aagctataag ggtaacccac ttgagagtgg ataaaagttt catggaacaa 120
gaccttccaa gatttttata agatgtgtag ttgtgaatat ataaagttag ttacaaattc 180
ccaggtcaaa agaaattatg aattataaga ggtatacaga acagaagcag catttggatg 240
ccggataata ttattgtatt ttccttcatg ttctcctgcg tagtttctga tgaagaacaa 300
tcagtagtat acgttccagg aatttctgct gaaggaaatg tcagatcaag acacaagctg 360
atgagtccaa aagctgatgt taaacttaag acttccaggg tgactgatgc ttcaatctcc 420
atggagtcct taaaaggcac aggagattca gtagatgaac agaattcctg caggggagaa 480
ataaagagtg catcattgaa ggatttatgt cttgaagaca aaagacgcat tgcaaactta 540
attaaagaac tggccggact cgag 564

<210> 981
<211> 191
<212> DNA
<213> Homo sapiens

<400> 981
gaattcggcc aaagaggcct acctgttctc ccaaaagacg aatgttttct tttttccgaa 60
tttgcctctc aatgtctctg ataactccgt cacgaagcct ctgctggtcc cactgctgct 120
tcacatgtac gccggccact gtggccgccg tcagcagcac cgagaggccc agcaccacct 180
tcgagctcga g 191

<210> 982
<211> 170
<212> DNA
<213> Homo sapiens

<400> 982
gaattcggcc aaagaggcct atgagtattt ttctcatgta ttcttgttac tacattttac 60
ttggagccag gatcttgctc tgttgcccag gctggctgga ctgcagtggc ctgaacacag 120
ctcaccacag catcaactat ttgcactcaa gtaatccccc catcctcgag 170

<210> 983
<211> 744
<212> DNA
<213> Homo sapiens

<400> 983
gaattcggcc aaagaggcct atttagaaat ggaaaaatgt taacaaatgt ggcaattatt 60
ttggatctat cacctgtcat cataactggc ttctgcttgt catccactcc taccccagga 120
cctacaccac ggtccactct tggttccagt gaagcatttg cttctacttc tgcacctttc 180
actagcctcc ccttttccac cagctcttct gctgcttcta ccagcaaccc aaattctgct 240
tcattgtcat cagtttttgc agggctccct ttgcccttac caccaacatc ccaaggccta 300
tccaacccga ctcctgtaat tgctggtggc tctactccca gcgttgccgg tccacttggt 360
gtgaacagtc ctcttttgtc tgcgttaaaa ggttttctga catccaatga caccaattta 420
atcaactcct ctgctttatc ctctgctgtc acaagtgggc tggcttcact atcttctctt 480
actcttcaga actctgactc ttctgcttca gcccctaaca agtgctatgc ccatcagcc 540
atccctaccc cacagaggac ttccactcca gggttggccc tgttcccagg cctgccgtct 600
cccgtggcta actcaacttc cactcccctg acattgcctg tacagtctcc tttagccact 660
gctgcatcag cttccacgtc agtgccagtt agctgtggct cctcagcctc ccttttgcgt 720
ggcccccacc caggtacact cgag 744

<210> 984
<211> 666
<212> DNA
<213> Homo sapiens

<400> 984
gaattcggcc aaagaggcct atgggaaaat aatgatcaac tcatgtttac ataaacaagc 60
tgactgcagg aatgaggagg ccctgggggc cctgggcact gcttatgttg ccaacattcc 120
acccccagca agagctctaa gcagagcccg gtgccgacct tttccttcaa ggtcctgacg 180
ttgacatact ccctgctcct tctatagtca gaacaacgtg tccctaggag ctaatatctc 240
aggagggctt tattgtgccc ctaaggcaat tattttttc tcccttttt tgtcatagtt 300
attagaactt ttccaaaaat aaaaccttga atgtaaacat ttatagaatt aatttacata 360
tgtggaaaaa aaatccagag ctgcttggat gaaagtatgg gtggtggtgt ggccaggcct 420
atgcctgctc tccctacaca cacacccacc ctagagccct acataaactc tgagatgtct 480
ccagagtaca gttggaaaac tcagctccag ggccgtataa ggaatttgca ttctctataa 540
tttttttaa attgagatat aattgaaata gagtaaaaat ttaccctttt taacatccag 600
ttcaacacat aattgtgtat catcataaac aagatgtaca acagtttgat ccgcaccctc 660
ctcgag 666

<210> 985
<211> 517
<212> DNA
<213> Homo sapiens

<400> 985
gaattcggcc aaagaggcct aggaagggga catgctgacg ctgttcgacg gggacggtcc 60
cagcgcccga gtcttggccc agctgcgggg acctcagccg cgccgccgcc ttctctcctc 120
tgggcccgac ctcacactgc agtttcaggc accgcccggg cccccaaatc caggcctggg 180
ccagggcttc gtattgcact tcaaagaggt cccgaggaac gacacgtgcc ccgagctgcc 240
acctccggag tggggctgga gaacggcatc ccacggggac ctgatccggg gcacggtgct 300
cacctaccag tgcgagcctg gctacgagct gctaggctcc gacattctca cttgccagtg 360
ggacctgtct tggagcgccg cgccgcccgc ctgccaaaag atcatgactt gtgctgaccc 420
tggcgagatt gccaacgggc accgcaccgc ctcggacgcc ggcttccccg ttggctccca 480
cgtccagtac cgctgcctgc cagggtacag cctcgag 517

<210> 986
<211> 627
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (161)

<400> 986
gaattcggcc aaagaggcct aggagcagat gagagccctc ctgctgggac agagaattgg 60
gttctagtgg actctgtgct acacttaaac ctgtgagaca aaccgcccat tattttatta 120
tttaattatg caatgcctag ttcctaaatg gattggaggc naattaccgt aaattttgaa 180
acagcctata tgtcagaaat gataatgttg ccacctaaat gttttctgtc ccccccaccc 240
tccccagggg aaatggtagg aaaatggtaa gtttcttagg gcaaagactg tgtcttctgt 300
ttcttttcat gcttaggata tggttctgtg catagtaggt actcagtaaa tgttcctaga 360
atcataaaat cctcaacaga tatgttactg agcatctgct tttcatgata agcactctat 420
cagatccttg ggatgcaaag gtaaataaga caaatccctt ttgcccaaag agctcaccat 480
caagttgggg gagggaaagt ggaattcaaa acatgttaat aaatcatcat agtactgtga 540
gataagtgca attaagaagc tagttataaa gtatagggga aatagaggag taatcatgtc 600
tgaaaagtca ggaaagtcgt cctcgag 627

<210> 987
<211> 379
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (11)

<220>
<221> unsure
<222> (13)

<220>
<221> unsure
<222> (66)

<400> 987
gaattcggcc nangaggcct agagacagca gagcacacaa gcttctagga caagagccag 60
gaaganacca ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt 120
ggctctcttg gcagccttcc tgatttctgc agctctgtgt gaaggtgcag ttttgccaag 180
gagtgctaaa gaacttagat gtcagtgcat aaagacatac tccaaacctt tccaccccaa 240
atttatcaaa gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat 300
tgtaaagctt tctgatggaa gagagctctg tctggacccc aaggaaaact gggtgcagag 360
ggttgtggag ccgctcgag 379

<210> 988

<211> 339
<212> DNA
<213> Homo sapiens

<400> 988
gaattcggcc aaagaggcct aagcacacaa gcttctagga caagagccag gaagaaacca 60
ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt ggctctcttg 120
gcagccttcc tgatttctgc agctctgtgt gaaggtgcag ttttgccaag gagtgctaaa 180
gaacttagat gtcagtgcat aaagacatac tccaaacctt tccaccccaa atttatcaaa 240
gaactgagag tgattgagag tggaccacac tgcgccaaca cagaaattat tgtaaagctt 300
tctgatggaa gagagctctg tctggacccc aagctcgag 339

<210> 989
<211> 396
<212> DNA
<213> Homo sapiens

<400> 989
gaattcggcc aaagaggcct aatgaaaaat taaaattgag ctttttttatt agaaagacaa 60
cagtacataa tttacccctt gctaaaggta ttcaataaaa aagtggagat atttttattc 120
ccaggtaatt gtcacataca gtctttcttc tctacttctg cttcattctc tttgtgtcac 180
tttagtatgt gtacctcctg ggtgctctct gtacattttt tctcctctat acaagtctgt 240
gccatggctt ctgctgtcat ttcttctgct ttgctcttca ccaggatttc gctgtgcccg 300
tttccttgtc tccctttgct tgtaactacc aggacttctg ctccggcttc tccggctcct 360
ttcctccctg ccgtggcttc tgctgctccc ctcgag 396

<210> 990
<211> 316
<212> DNA
<213> Homo sapiens

<400> 990
gaattcggcc aaagaggcct aagccgtatt tgacaagtat aggtggctct atattataga 60
aatgggaata acattatttt tatttttatt tttttgaag acagtgtctt gctctgtcgc 120
ccaggctaga gtgcagtggt gcagtcttgg ctcactgcaa cctccgcctc ctgggttcga 180
gcaattctcc tgcctcagcc tcctgagtag ctgggattac aggcacgcat caccacaccc 240
ggccagtttt tgtattttta gtagaaatgg ggtttcacca tgttggctag gatggtctca 300
atctcctgac ctcgag 316

<210> 991
<211> 388
<212> DNA
<213> Homo sapiens

<400> 991
gaattcggcc aaagaggcct aggataatag tcaaattctt acctcgctct ttcactgcta 60
gtaagatcag attgcgtttc tttcagttac tcttcaatcg ccagtttctt gatctgcttc 120
taaaagaaga agtagagaag ataaatcctg tcttcaatac ctggaaggaa aaacaaaata 180
acctcaactc cgttttgaaa aaaacattcc aagaactttc atcagagatt ttacttagat 240
gatttacaca atgaagaaag tacatgcact ttgggcttct gtatgcctgc tgcttaatct 300
tgcccctgcc cctcttaatg ctgattctga ggaagatgaa gaacacacaa ttatcacaga 360
tacggagttg ccaccactaa aactcgag 388

<210> 992
<211> 361
<212> DNA
<213> Homo sapiens

<400> 992
gaattcggcc aaagaggcct agagacagca gagcacacaa gcttctagga caagagccag 60

gaagaaacca ccggaaggaa ccatctcact gtgtgtaaac atgacttcca agctggccgt 120
ggctctcttg gcagccttcc tgatttctgc agctctgtgt gaaggt[illegible]ag ttttgccaag 180
gagtgctaaa gaacttagat gtcagtgcat aaagacatac tccaaac[illegible]t tccaccccaa 240
atttatcaaa gaactgagag tgattgagag tggaccacac tgcgcca[illegible]a cagaaattat 300
tgtaaagctt tctgatggaa gagagctctg tctggacccc aaggaaaact gggttctcga 360
g 361

<210> 993
<211> 378
<212> DNA
<213> Homo sapiens

<400> 993
gaattcggcc aaagaggcct agagactaac ccagaaacat ccaattctca aactgaagct 60
cgcactctcg cctccagcat gaaagtctct gccgcccttc tgtgcctgct gctcatagca 120
gccaccttca ttccccaagg gctcgctcag ccagatgcaa tcaatgcccc agtcacctgc 180
tgctataact tcaccaatag gaagatctca gtgcagaggc tcgcgagcta tagaagaatc 240
accagcagca agtgtcccaa agaagctgtg atcttcaaga ccattgtggc caaggagatc 300
tgtgctgacc ccaagcagaa gtgggttcag gattccatgg accacctgga caagcaaacc 360
caaactccgg tactcgag 378

<210> 994
<211> 367
<212> DNA
<213> Homo sapiens

<400> 994
gaattcggcc aaagaggcct attgaattct agacctgcct cgagccctcc cgtattaata 60
tttccacttt tggaactact ggcctttttct ttttaaagga attcaagcag gatacgtttt 120
tctgttgggc attgactaga ttgtttgcaa aagtttcgca tcaaaaacaa caacaacaaa 180
aaaccaaaca actctccttg atctatactt tgagaattgt tgatttcttt tttttattct 240
gacttttaaa aacaactttt tttttccact tttttaaaaa atgcactact gtgtgctgag 300
cgcttttctg atcctgcatc tggtcacggt cgcgctcagc ctgtctacct gcagcacaca 360
tctcgag 367

<210> 995
<211> 133
<212> DNA
<213> Homo sapiens

<400> 995
gaattcggcc aaagaggcct aggtggtggt tgtggctgtg gttgtagaaa taataatggt 60
ggtggtggtg cggctgctgc tgctgctgct gagggtgatg gtgcggatgg tggtggctgt 120
gccggtgctc gag 133

<210> 996
<211> 414
<212> DNA
<213> Homo sapiens

<400> 996
gaattcggcc aaagaggcct agtctctttt tttccccatc tcattgctcc aagaattttt 60
ttcttcttac tcgccaaagt cagggttccc tctgcccgtc ccgtattaat atttccactt 120
ttggaactac tggccctttc tttttaaagg aattcaagca ggatacgttt ttctgttggg 180
cattgactag attgtttgca aaagtttcgc atcaaaaaca acaacaacaa aaaaccaaac 240
aactctcctt gatctatact ttgagaattg ttgatttctt ttttttattc tgacttttaa 300
aaacaacttt tttttccact tttttaaaaa atgcactact gtgtgctgag cgcttttctg 360
atcctgcatc tggtcacggt cgcgctcagc ctgtctacct gcagcacact cgag 414

<210> 997

<211> 394
<212> DNA
<213> Homo sapiens

<400> 997
gaattcggcc aaagaggcct acgagaagtc ctgtaagacg taaatatttt taaaattcac 60
tgaatttttg tctttctcgg taccatagaa caccacagcc aagagatctc gatcactgct 120
tatgatctta ctgatgtaca cactttggat acactggatg ctcatgtcaa aaggtgtcaa 180
ctcatcttca tctccatcct cttcctcacc atcaccttct tcttcctcct cctcttcctc 240
cccaccttct tcctcttctt cgtctacctc attgtcagcc tcctgctccc cattttcctc 300
attagcattc ccgttagcag gggcgtctct tccattttct gcctcttcca caacttcctt 360
cttctccttt aagtccttgg tggtgagtct cgag 394

<210> 998
<211> 394
<212> DNA
<213> Homo sapiens

<400> 998
gaattcggcc aaagaggcct acgagaagtc ctgtaagacg taaatatttt taaaattcac 60
tgaatttttg tctttctcgg taccatagaa caccacagcc aagagatctc gatcactgct 120
tatgatctta ctgatgtaca cactttggat acactggatg ctcatgtcaa aaggtgtcaa 180
ctcatcttca tctccatcct cttcctcacc atcaccttct tcttcctcct cctcttcctc 240
cccaccttct tcctcttctt cgtctacctc attgtcagcc tcctgctccc cattttcctc 300
attagcattc ccgttagcag gggcgtctct tccattttct gcctcttcca caacttcctt 360
cttctccttt aagtccttgg tggtgagtct cgag 394

<210> 999
<211> 118
<212> DNA
<213> Homo sapiens

<400> 999
gaattcgcgg ccgcgtcgac ccatggatct gttcagtctg gcgtttgtgc ttatgctccc 60
agcagtgcag ggggcagccc agggcgccct ctcacggctc cttcccgccc ctctcgag 118

<210> 1000
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1000
gaattcggcc aaagaggcct agttttatct gttagctcct ttaatcccca caaaagccat 60
cagaagtagt tgctattatt aatcctgttt tacagatgag gatcctcgag 110

<210> 1001
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (143)

<220>
<221> unsure
<222> (287)

<400> 1001
gaattcggcc aaagaggcct aaccaggaaa tggagcggct ccgggagctg cagtgggcgt 60

ccatcctaga catgcgcaga gaccacgagg agcagctgca gcggctaaag ctgctgaagg 120
accgagaggt cgatgcggcc acnagtgcca cctcccacac gcggtccctg aatagcatca 180
tccaccagat ggagaagttc tccagcagcc tgcacgagtt gtcctcccgc gtggaggcct 240
cgcacctcac cacctcccag gagcgggagc tggggatccg gcagcgngac gagcagctgc 300
gggcactgca ggagcggctg ggccagcagc agcgggacat ggaggaggag cggagccggc 360
aacaggaggt catcgggaag atggaggcac ggctgaatga gcagagccgg ctgctggagc 420
aggaacgctg gcgggtgact gccgagcagt ccaaggcgga gtccatgcag cgcgccctag 480
tggagcgtct cgag 494

<210> 1002
<211> 370
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (8)

<400> 1002
gatcaacnag atgaagggtt atactctgct gtcggagggc attgatgaga tggtgggcat 60
catctacaag cccaaaacta aagagactcg ggagacctat gaggtgctac tcagcttcat 120
ccaggctgct cttggggacc agccacgtga tatcctttgt ggggcagctg atgaagttct 180
agctgttcta aagaatgaaa agctgcggga caaggaaagg cgaaaggaga ttgacctgct 240
gctgggtcaa acagatgata ccagatacca tgtgctagtg aacctgggca aaaagatcac 300
agactatggt ggagataagg aaatccaaaa tatggatgac aacattgatg agacatacgg 360
tggtctcgag 370

<210> 1003
<211> 568
<212> DNA
<213> Homo sapiens

<400> 1003
gaattcggcc aaagaggcct aggtttcggt tggaggactc gttggggagg tggcctgcgc 60
ttgtagagac tgcatccccg agacgatggc ggagggagat aatcgcagca ccaacctgct 120
ggctgcagag actgcaagtc tggaagaaca gctgcaagga tggggagaag tgatgctgat 180
ggctgataaa gtcctccgat gggaaagagc ctggtttcca cctgccatca tgggtgtggt 240
ttctttggtg tttctgatta tctactatct agatccatct gttctgtccg gcgtttcctg 300
ttttgttatg tttttgtgct tggctgacta ccttgttccc attctagcgc ctagaatttt 360
tggctccaat aaatggacca ctgaacaaca gcaaagattc catgaaattt gcagcaatct 420
agtaaaaact cgacgcagag ctgtgggttg gtggaaacgc ctcttcacac taaaggaaga 480
aaaacctaag atgtacttca tgaccatgat cgtttccctt gctgcggttg cttgggtggg 540
acaacaagtc cacaaccaac ttctcgag 568

<210> 1004
<211> 551
<212> DNA
<213> Homo sapiens

<400> 1004
gaattcggcc aaagaggcct aaactattca gattacttaa ccccaatgac aaaatccaca 60
aaaattttga aggcagagaa acagaaggaa tccagtgatg ttttagctcc attagtctaa 120
taggtcagat attaaaaaat tgttcatatc aaaattacct tatatggatt attgccatgt 180
tttttgagag ttaattattt actgttttct aattcttgcc agtatttatg aacagctgta 240
gcttgatatt tacctactga attttaggag aactaatggt cacagtttgg gttcttttat 300
gtgtatgttt ttaaaacagc tattttgtga atctaggtgg ttggttttta gaagatttca 360
ggagatgcag tccagcacaa ttagagctgg aacattgtta cagcaggctt tttgttgctc 420
atgggcagat agagggaaag aatcagttgt tagccccaaa tttccacatt tcagtgttgt 480
aaactctgaa tgtgataggt agatgtgggc taagaataat ttcctccagt gaagacacgg 540
gagaactcga g 551

<210> 1005
<211> 662
<212> DNA
<213> Homo sapiens

<400> 1005
gaattcgcgg ccgcgtcgac gtggataaat cagtgctgtc ttctttacca gcaatgacaa 60
aagagatgac agagaatcag aggctctgcc ctcatgaaca agaggatgct gactgcagtt 120
cagaatccgt gaaatttgac gcacgttcaa tgacagcatc ccttcctcac agcactaaaa 180
atggcccctc ccttcaggag aagttgaagt ccttcaaggc tgccctcatt gctctctacc 240
tccttgtgtt tgcagtacta atacctgttg ttggaatagt aacagtccag gaacatggga 300
attcactgga tgcaatctcc aagtccttgc agagtctgaa tatgacactg cttgatgttc 360
aactccatac agaaacactg aatgtcagag tccgtgaatc tacagcaaag caacaggagg 420
acatcagtaa attggaggaa cgtgtgtaca aagtatcagc agaagtccag tctgtgaaag 480
aagaacaagc gcacgtggaa caggaagtaa aacaggaagt gagagtattg aacaacatca 540
ccaacgacct cagactgaag gactgggaac actcacagac actgaaaaac atcaccttca 600
ttcaagggcc tcctggaccc caaggtgaaa agggagacag agggcttact ggactactcg 660
ag 662

<210> 1006
<211> 166
<212> DNA
<213> Homo sapiens

<400> 1006
gaattcggcc aaagaggcct aagtttgtgt cagaatcatg tttacttttg gtatcttcct 60
taccttaatg gttctgaatt acagcctggc ttccagggaa gtaaagaaag tgattgttta 120
tgggggaaaa ggagcactgg gcacagagag tgtgcgcata ctcgag 166

<210> 1007
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1007
gaattcgcgg ccgcgtcgac gaggagggca aggagaggag gcaggagcag gccaacctgc 60
agctgcactt gcagcctagg ggcaatagag cagagtggtc agaggctggg ctgggaccaa 120
ccacaggtcc cagtccacac cctgtcatca ttcgctgggc gagctcaggc ctgtcactga 180
atcgctttgt gcctcagttt cctccctaaa atgagaataa tagcatcgta ctcgag 236

<210> 1008
<211> 147
<212> DNA
<213> Homo sapiens

<400> 1008
gaattcgcgg ccgcgtcgac ttcaaggcag ttatcttgat tttgggggga tttaatatat 60
taaagctata taatactcag atttgggcac tgtaatgact atatctgtgc tgttaattac 120
atgtatttaa aacgtcacat actcgag 147

<210> 1009
<211> 699
<212> DNA
<213> Homo sapiens

<400> 1009
gaattcgcgg ccgcgtcgac cgattgaatt ctaggcctgc ctcagcctcc caaagtgctg 60
ggattacagg cgtgagtcac cgtgccaggc ccttatgtag tggcatttct aacacaaaag 120
atttattttt acctaaaatg acaatactta ctgggttgcc aaggagaata gttaagttgt 180
agctaaagat gaaaagccca gagtaggcaa gtaagaaaac cgaattggta aaacttcttt 240

ctccacagga cttctgttag tgatttgttc atgaactttg aaaggagcaa tggcagttcc 300
tccccgatct ccgttctact caccacatcc caataccgta aagtttatga gcagaggaat 360
ttaacataat gcattttaag ttcataaact aacaaaataa cttcagatct tttaaaaatg 420
ctttttagaa gtttggcctg catttctacc tttttcacca tattctgtct cctcagctac 480
ctcctaactc cctgaactta aaactctctg gggtcgcttt ccattaatag cttttgactt 540
tgtttcttat gctttggaaa tgtatgccat agcgacattg ctattttaag aggcttttat 600
atattcacgt tttctccctc ttttctctct gtcttccctt gcccttcctt ctattcccct 660
tcttattctt gccaccccac aacacccccc acactcgag 699

<210> 1010
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1010
gaattcgcgg ccgcgtcgac gagaccgtgg tagagaagac agtggtacac cagaaataac 60
ccaaaggatt gccccttctg tagaaggccc ttagactcca tgatgccttt cagctgggtg 120
ctatacttgc acctaactct ggggcttca ctttctatcc ctacaattac tcaaacagat 180
aaaaggctac tcgag 195

<210> 1011
<211> 162
<212> DNA
<213> Homo sapiens

<400> 1011
gaattcgcgg ccgcgtcgac ttcgtccctt tgcttccttc ctgtgatcca gctacagttg 60
tgctcatggg gcctttctgt gaagtagtgc ttgtggttga tattatggtt ttgaacagct 120
cagctgaaga agttattgtc acagctgtga tacgcactcg ag 162
<210> 1012
<211> 478
<212> DNA
<213> Homo sapiens

<400> 1012
gaattcggcc aaagaggcct aatttttcac cgcttattct ttttgtcttt ttaacaaaca 60
tattatccga attttttttt ctgcaagcca ctgatagtct ctgctaacta gcttaattga 120
ccttttttaca aagtttgatc cccaagcatc ctcaactaaa tcattgaata cttcaatcag 180
gatattatct gctttacttt acaaataaaa ccaaatcttt tgtcaacagg atgaaaccca 240
tcttaaagga aagaaaagga attggtgtga agagagaagt tagagaaggg aaatgcagtg 300
aattactatc tgtgtccatc aggaagtttg tcctgttaac caaatggtta ctgcactacc 360
agggttactg gtttattttc cagggagctg ataaagcagg agaactgttg ctgcatgttt 420
tctatttgga ctccgtcaca atatggtagg atatccctca ccaactcccg aactcgag 478

<210> 1013
<211> 528
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (172)

<220>
<221> unsure
<222> (177)

<400> 1013
gaattcggcc aaagaggcct acaagagata gccccagccc agatttccaa atcattaatg 60
gtagataact acaccaaaga tggagtccca ggtcaagaaa gacccaaggg tccctctgct 120

gttgtgccct ctacaagcac aggaggagtt gctctaccta ttacaacagc cntaganaca 180
gttaacattc atggagatca ctctcttaag aataaagctg agcttgctga ttccatgaaa 240
aatgaagcag ggatcgatga agggcatgtg ataggagaat ctgagtcagt gcacagtggt 300
gcgtctaagc attcagtaga gaaagtcaca gagctagcaa aggtcacct ccttcctgga 360
gtgccagtag aagaccagag cctaccagga gaggccagag ccctagaagg atatgcagat 420
agaggtaatt tcccagcaca tccagtgaat gaagagaaag agactaaaga agggtctgtt 480
gcagttcaga ttcctgactt actggaagac aaagcacaac agctcgag 528

<210> 1014
<211> 478
<212> DNA
<213> Homo sapiens

<400> 1014
gaattcgccc aaagaggcct aggaactaca cagaatggag gtggagtccc taaacaaaat 60
gcttgaggag ctaagacttg aacggaagaa actaattgag gattatgaag gcaagttgaa 120
taaagctcag tccttttatg aacgtgagct tgatactttg aaaaggtcac agctttttac 180
agcagaaagc ctacaggcca gcaaagaaaa ggaagctgat cttagaaaag aatttcaggg 240
acaagaagca attttacgaa aaactatagg aaaattaaag acagagttac agatggtaca 300
ggatgaagct ggaagtcttc ttgacaaatg ccaaaagctt cagacggcac ttgccatagc 360
agagaacaat gttcaggttc ttcaaaaaca gcttgatgat gccaaggagg gagaaatggc 420
cctattaagc aagcacaaag aagtggaaag tgagctagca gctgccagag agctcgag 478

<210> 1015
<211> 515
<212> DNA
<213> Homo sapiens

<400> 1015
gaattcggcc aaagaggcct attataaatg acccggtcaa gttggtttca aagtccgaca 60
ggcttgtctg tttactagct gcgtggcctt ggacgggtgg ctgacatctg taaagaatcc 120
tcctgtgatg aaactgagga atcgggtggc cgggcaagct gggaagagca aagccagagc 180
tgcgctgcct caatacccac aaaagaccat tcccagtata cataagcaca ggatgttttt 240
ctcaagaggg atgtatttat cacttggaca tctgtttata atataaacag acatgtgact 300
gggaacatct tgctgccaaa agaatcctag gcagtggctc attgtatgtg aggttgaacc 360
acgtgaaatt gccaatatta ggctggcttt tatctacaaa gaaggagttt catggggttc 420
agcctaacag ttatggaaac tacagtcctt ataaaccatt ggcatggtaa taaacagatc 480
ttaagtataa aaattttgta attgggccgc tcgag 515

<210> 1016
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1016
gaattcggcc aaagaggcct agggacggag agacagagaa ataaaaaatt aaacgtggca 60
aaaatcaaca aagttccaat gcagcaagca tatggcaaag cagaggaatt cacagagaaa 120
cagagagaga aactggatag gctggggaga ctcgag 156

<210> 1017
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1017
gaattcggcc aaagaggcct agggaaattt ttcttctccc acattatatt tattcagtga 60
tttatttatg tcagtataga ctcatggata tttattttat accttggtta ataatccaac 120
accactttat tttgttgctc aaattgttcc aactttgccc acaagaactc gag 173

<210> 1018

<211> 500
<212> DNA
<213> Homo sapiens

<400> 1018
gaattcggcc aaagaggcct aaagagtata tacctgctga cactgtactt ctctcatcaa 60
gtgagcccca agccatgtgc tacattgaaa catccaactt agatggtgaa acaaacttga 120
aaattagaca gggcttacca gcaacatcag atatcaaaga cgttgacagt ttgatgagga 180
tttctggcag aattgagtgt gaaagtccaa acagacatct ctacgatttt gttggaaaca 240
taaggcttga tggacatggc accgttccac tgggagcaga tcagattctt cttcgaggag 300
ctcagttgag aaatacacag tgggttcatg gaatagttgt ctacactgga catgacacca 360
agctgatgca gaattcaaca agtccaccac ttaagctctc aaatgtggaa cggattacaa 420
atgtacaaat tttgatttta ttttgtatct taattgccat gtctcttgtc tgttctgtgg 480
gctcagccat ggaactcgag 500

<210> 1019
<211> 475
<212> DNA
<213> Homo sapiens

<400> 1019
gaattcggcc aaagaggcct aaaaaataat ggaaataaag ctcattaaag gtcctaaagg 60
tcttgggttt agcattgctg gaggtgttgg aaatcagcat attcctgggg ataatagcat 120
ctatgtaacc aaaataattg aaggaggtgc agcacataag gatggcaaac ttcagattgg 180
agataaactt ttagcagtga ataacgtatg tttagaagaa gttactcatg aagaagcagt 240
aactgcctta aagaacacat ctgattttgt ttatttgaaa gtggcaaaac ccacaagtat 300
gtatatgaat gatggctatg caccacctga tatcaccaac tcttcttctc agcctgttga 360
taaccatgtt agcccatctt ccttcttggg ccagacacca gcatctccag ccagatactc 420
cccagtttct aaagcagtac ttggagatga tgaaattaca agggaaggac tcgag 475

<210> 1020
<211> 246
<212> DNA
<213> Homo sapiens

<400> 1020
gaattcggcc aaagaggcct agccattcac gtatctttgc agaaatatcc attcaaatct 60
cttgctcatt tttcagctgg gttacttccc tttctattgt tgaaacttag gaattctttg 120
gacactagac tcatcagata tatgatttgc aaatattttc tcttattctg tgggttgtct 180
ttttactttc ttgataatgt tccggtcagg ccgaattttt tcccgatccc agagaaggtg 240
tcaaag 246

<210> 1021
<211> 147
<212> DNA
<213> Homo sapiens

<400> 1021
gaattcgcgg ccgcgtcgac aatgttgctg aagttgagtc atcaaagaat gcttcagagg 60
acaatcattc tgagaatact ttgtattcaa atgataatgg aagtaattta cagcgtgaag 120
caactgtcat cagtgagctt cctcgag 147

<210> 1022
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1022
gaattcgcgg ccgcgtcgac gcactatata atcaaaaatt actcatccta caaagagcaa 60
ggggaagcta aataattccc aagggaaaag acaattaaca aacaccatcc ctgagaattg 120

ttgcaaattg ccagatctta aagcagctgc taaaactatg ccctgcaaag taaaggtgaa 180
cactttttaaa acaaatatga tggtgcacat cctcgag 217

<210> 1023
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1023
gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgagtgactc cgtcggagga 60
aaatgactcc ccagtcgctg ctgcagacga cactgttcct gctgagtctg ctcttcctgg 120
tccaaggtgc ccacggcagg ggccacaggg aagactttcg cttctgcagc cagcggaacc 180
agacacacag gagcagcctc cactacaaac ccacaccaga cctgcacctc ctcgag 236

<210> 1024
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1024
gaattcgcgg ccgcgtcgac ttgagacaaa aggtggttaa gtagcattat tatgtaatgc 60
ttatatacca tagagttttt aatagaagag aaatccattt cctccgaggg tcactattaa 120
caatgtactt ccttaaattt agtttaatga ttgtaatggg tgctactctc gag 173

<210> 1025
<211> 438
<212> DNA
<213> Homo sapiens

<400> 1025
gaattcgcgg ccgcgtcgac cacaggaatg aattacacgc cctccatgca tcaagaagca 60
caggaggaga cagttatgaa gctcaaaggt atagatgcaa atgaaccaac agaaggaagt 120
attcttttga aaagcagtga aaaaaagcta caagaaacac caactgaagc aaatcacgta 180
caaagactga gacaaatgct ggcttgccct ccacatggtt tactggacag ggtcataaca 240
aatgttacca tcattgttct tctgtgggct gtagtttggt caattactgg cagtgaatgt 300
cttcctggag gaaacctatt tggaattata atcctattct attgtgccat cattggtggt 360
aaacttttgg ggcttattaa gttacctaca ttgcctccac tgccttctct tcttggcatg 420
ctgcttgcag ggctcgag 438

<210> 1026
<211> 736
<212> DNA
<213> Homo sapiens

<400> 1026
gaattcggcc aaagaggcct aattgaattc tagacctgcc tcgagtatgg aaatagagtt 60
gagggaaatg agaacagaag ccattgccag acctctggaa ataaacgaga ctgaaaaagt 120
gatgagaatt gcaataaaag agattttgac acaggttcag aagactaaag acctgctcaa 180
taatgtggcc tctgatgaag ctaatttaga agccaaaatc gaaaagagaa aattagaact 240
ggaaagaaat cggaagcgac tagagactct gcagagtgtc aggccatgtt ttatggatga 300
gtatgagaag actgaggaag aattacaaaa gcagtatgac acttatctgg agaaatttca 360
aaatctgact tatctggaac aacagcttga agaccatcat aggatggagc aagaaaggtt 420
tgaggaagct aaaaacactc tctgcctgat acagaacaag ctcaaggagg aagagaagcg 480
cctgctcaag agtggaagta acgatgactc ggacatagac atccaggagg acgatgaatc 540
cgacagtgag ttggaagaaa ggcggctgcc caagccacag acagccatgg agatgctcat 600
gcaaggaaga cctggcaaac gcattgtggg cacgatgcaa ggtggagact ccgatgacaa 660
tgaggactcg gaggagagtg aaattgacat ggaagatgat gatgacgagg atgacgattt 720
ggaagacgag ctcgag 736

<210> 1027

<211> 508
<212> DNA
<213> Homo sapiens

<400> 1027
gaattcggcc aaagaggcct acgtagatca gtctcctttt gtgcctgaag agacgatgga 60
ggaacagaag acaaaagtgg gtgatggtga cctctctgct gaggagatac ctgaaaatga 120
ggtatccttg agaagagctg tcagtaaaaa gaagacagca ctgggcaaaa accattccag 180
aaaagatgga ctcagtgatg aaagaggaag agatgactgt ggaacctttg aggacacagg 240
gccccttctc cagtttgact ataaggctgt tgctgatcga ctcctggaaa tgaccagcag 300
gaagaacacg ccccacttca acaggaagcg cctctccaaa ctcatcaaga aattccaaga 360
cctttctgaa ggaagcagta tatctcaact cagttttgcg gaggacattt ctgctgatga 420
agatgaccaa atcctcagtc aaggaaagca taagaagaaa ggaaataaac ttttagagaa 480
aactaacttg gaaaaggaaa aactcgag 508

<210> 1028
<211> 632
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (166)

<400> 1028
gaattcggcc aaagaggcct acaaaaggca gtttaattga tttcagtgaa gacagactca 60
agaaagaaat gcaaaatcct acttccttga aaatttctga agaggaaaca aaactcaggt 120
ctgttagtcc aactgagaag aaagataatt tggaaaacag atcatntacc ttggcagaaa 180
agaaggtgct ggcagaaaaa caaaactctg tggccccatt agagcttaga gatagtaatg 240
aaatagggaa gacacaaatt acacttggat ctagatctac tgaactgaaa gaatcaaaag 300
ccgatgctat gccacagcac ttctatcaaa atgaagacta caatgaaaga cccaaaatca 360
ttgttggttc tgaaaaggag aaaggtgaag aaaaagaaaa tcaggtatat gtgctttcag 420
aaggaaagaa gcagcaggaa catcagcctt attctgtgaa tgtagccgag tctatgagta 480
gagaatcaga tatctcttta ggtcattctt tgggtgaaac tcaatcattt tcattagtta 540
aagctacatc agttactgaa aaatcagaag ccatgctcgc agaggctcac ccagaaatca 600
gagaagcaaa ggcagtagga acccaactcg ag 632

<210> 1029
<211> 131
<212> DNA
<213> Homo sapiens

<400> 1029
gaattcgcgg ccgcgtcgac gttttatatt gtgttttcca ctagtatatc cctgttgatt 60
tgtttgtgcc ttttattaac tgccattttc taaaattttt ttcaataaaa ggaaggaaga 120
tgacgctcga g 131

<210> 1030
<211> 720
<212> DNA
<213> Homo sapiens

<400> 1030
gaattcggcc aaagaggcct aagcagacat ctgagaaagc ttcagcattt ctcttgctaa 60
cagattcaga aaagtgtctc aaagcagagc acagagttat ttggtgtttg ctgaagacag 120
cctttgtgcc acaatcactt attaaataag cgatcaattt cccattgaac tgaacatgca 180
acatttatca tacattcagt tctcattcac actccttaag atttggtcag aatttttatt 240
tctgttcatg tcttctactt ttctactcct gtatgaataa aatattgatt tgattacagt 300
ggctttgact ataatgtggg agccaatttt tgcctcagtc ttcattttta tatttacctt 360
gttattctca ggcatttttt tcttctatgt gagagttaaa atcattctgt aatttccccc 420

caaaatcata ttggtattct agttggcaat gtcttacatt tatgttaagt ttgagggaat 480
tggtagttca agtataagtt aattaaggcc atttatttc taagtgaaca gacttgaaac 540
tccagagcta ctgaagtaaa agttagaatc atttgcattt tcattcagat aggagataat 600
tttgtaaatt ttgatgctat tattttaact ctattagctt aagtaatgtc ataatagaaa 660
acacaagcat ttgaccaaat gagatccatt cagcgactaa ctggcaaggc accgctcgag 720

<210> 1031
<211> 1077
<212> DNA
<213> Homo sapiens

<400> 1031
gaattcggcc aaagaggcct atgaggtagc ttatttcgtc aattaattag ggtgctggat 60
ggtagagaat tttgtcagtc aactatgtac acacagtaaa tactgtttct taggcaaagg 120
taactttttt atatagttgt aaaattccat tatattccat tgccaaagaa acattaagaa 180
ctttgtatag ctgtataaaa agcaactaat tttttaaaga ataaacattt taaagtcagc 240
aaacatactg tgtccttgca gaagttgatg tgctgagcag cagccttatg ggtgggtctt 300
tttttcttag ttttccaggc ttaacatttt tgattttgtt ttttaatgtt tggaacataa 360
atgaagattt gatacattat ttcattatct aaaaaggatt aattattcat gctcattgta 420
agaacttcat tttgtagcaa atggcatatc acaggatctg tccagataat cgatattttc 480
agtatacaaa tgtaaataat cacagatgag aatgtactta gctgtatttt caaataagta 540
atcttccccc cttttgtagg actttaaaac taggcatcaa tgaacctgtt tttcctatta 600
tgcctggaat ttagtcatga taccttgact cattccatca tatttcaaga ggattcagag 660
tgctagaaat tattttggta gcctgtaaca cacggcaaca ctggtccttg ggcctatgat 720
gacccacaga tgactcagta tagagttcat tgctaattat aaattactag tgaatctttt 780
tgatatttta agctctagtg ggaaaaatct ggccactttt gtgtttttat gaaggccatg 840
gaataaaagg atccaaagat ttaaatattt ttatctaata ttttgattgt tttcttaact 900
ttctccttaa aacattcagt agtgataaag atatagaaac tgcactgtag gagaattgga 960
atatttaagg ctggttgaca ttttttattt tcattttata tcttttgtat agctctacaa 1020
ggcagtgttt tgtaatttgg tttcattatg aagatccagt acttggcagc tctcgag 1077

<210> 1032
<211> 802
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (770)

<400> 1032
gaattcggcc aaagaggcct agacagagtg aagaaactgt gttcccccct tgggttgcta 60
tcgatcaagg gtaaaattcc attctgatat caaaatgcag tattcgcacc actgtgagca 120
ccttttagag agactgaaca aacagcggga agcaggtttt ctctgtgact gtaccatagt 180
gattggggaa ttccagttta aagctcatag gaatgtgctg gcctccttta gtgagaattt 240
tggtgcgatc tacagaagca cttctgagaa caatgtcttt cttgatcaga gtcaggtgaa 300
ggctgatgga tttcagaaac tgttggagtt tatatacaca ggaactttaa atcttgacag 360
ttggaatgtt aaagaaattc atcaggctgc tgactatctc aaagtggaag aggtggtcac 420
taaatgcaaa ataaagatgg aagattttgc ttttattgct aatccttctt ctacagagat 480
atctagtatt actggaaaca ttgaattgaa tcaacagact tgtcttctta ctctgcgaga 540
ttataataat cgagagaaat cagaagtatc tacagatttg attcaggcaa atcctaaaca 600
aggcgcgtta gcgaaaaagt catctcaaac gaaaaagaag aagaaggctt tcaactcccc 660
gaaaacaggg cagaataaaa cagtgcaata tcccagtgac atcttagaga atgcatctgt 720
tgaattattc ctagatgcaa ataaactgcc cacacctgta gtagaacaan ttgcacaaat 780
aaatgataat tcagaactcg ag 802

<210> 1033
<211> 442
<212> DNA
<213> Homo sapiens

<400> 1033
gaattcggcc aaagaggcct aagcagaggg aaaacaagag gaaatccaac agaagggaca 60
ggctgagaaa aaagaattac aacataaaat agatgaaatg gaagaaaaag aacaggagct 120
ccaggcaaaa atagaagctt tgcaagctga taatgatttc accaatgaaa ggctaacagc 180
tttacaagta cggttagaac atcttcagga gaaaactctt aaagaatgca gcagcttggg 240
gatacaagtt gatgacttct tacctaaaat aaatgggagc acagaaaaag agaagctgat 300
cgtcgaaggg catctaacca aagcggtaga agaaacaaag ctttcaaaag aaaatcagac 360
aagagcaaaa gaatctgatt tttcagatac tctgagtcca agcaaggaaa aaagcagtga 420
cgacactaca gacgcactcg ag 442

<210> 1034
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1034
gaattcgcgg ccgcgtcgac aactaaatat aaaaaataca ggatgatggg tacagtgcct 60
gagaggaggt taaaggagat aaaagtaagt atattttttg agaacaaaat agtaacaata 120
gtgctgataa tgctgtcatt atttatattt tgcacactgt gtgtccagct ctgtattata 180
tttattaatg catccaaccc ttactactac cctctcgag 219

<210> 1035
<211> 118
<212> DNA
<213> Homo sapiens

<400> 1035
gaattcggcc aaagaggcct aagaaaacat gattatgtgt cactttaata caggaaattt 60
aggtgttttt tggtgttttt gtttttgttt ttgttttctt tccaaagctc acctcgag 118

<210> 1036
<211> 1259
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (285)

<220>
<221> unsure
<222> (603)

<220>
<221> unsure
<222> (619)

<220>
<221> unsure
<222> (645)

<220>
<221> unsure
<222> (675)

<220>
<221> unsure
<222> (707)

<220>

<221> unsure
<222> (737)

<400> 1036
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ccagaccctc cctcccgtgg 60
ctccaaacta atacggactg aacggatcgc tgcgaggatt atcttacact gaactgatca 120
agtactttga aaatgacttc gaaatttctc ttggtgtcct tcatacttgc tgcactgagt 180
ctttcaacca ccttttctct ccaaccagac cagcaaaagg ttctactagt ttcttttgat 240
ggattccgtt gggattactt atataaagtt ccaacgcccc atttncatta tattatgaaa 300
tatggtgttc acgtgaagca agttactaat gtttttatta caaaaaccta ccctaaccat 360
tatactttgg taactggcct ctttgcagag aatcatggga ttgttgcaaa tgatatgttt 420
gatcctattc ggaacaaatc tttctccttg gatcacatga atatttatga ttccaagttt 480
tgggaagaag cgacaccaat atggatcaca aaccagaggc aggacatact agtggtgcag 540
ccatgtggcc cggaacagat gtaaaataca taagcgcttt cctactcatt acatgcctta 600
cantgagtca gtttcattng aagatagagt tgccaaatta ttgantggtt tacgtcaaag 660
agcccataaa tcttngtctt ctctattggg agacctgatg acatggncac catttgggac 720
ctgacagtcc gctcatnggg cctgtcattt cagatattga caagaagtta ggatatctca 780
tacaaatgct gaaaaaggca aagttgtgga acactctgaa cctaatcatc acaagtgatc 840
atggaatgac gcagtgctct gaggaaaggt taatagaact tgaccagtac ctggataaag 900
accactatac cctgattgat caatctccag tagcagccat cttgccaaaa gaaggtaaat 960
ttgatgaagt ctatgaagca ctaactcacg ctcatcctaa tcttactgtt tacaaaaaag 1020
aagacgttcc agaaaggtgg cattacaaat acaacagtcg aattcaacca atcatagcag 1080
tggctgatga agggtggcac atttacagaa ataagtcaga tgactttctg ttaggcaacc 1140
acggttacga taatgcgtta gcagatatgc atccaatatt tttagcccat ggtcctgcct 1200
tcagaaagaa tttctcaaaa gaagccatga actccacaga tttgtaccca ctactcgag 1259

<210> 1037
<211> 588
<212> DNA
<213> Homo sapiens

<400> 1037
gaattcggcc aaagaggcct aggagctcct aaaaaataaa aagactaaca atccaacaac 60
aacaaaaaag gataatgcat atgaagagag tgtacacaca cacacacaca cagagctctt 120
aaacatatgg aaagatgttc catttcactc ataaaaaaag aagtataaat tatcaggaag 180
agatcccata aagagatagc tttgcccctt ctctgggggc aaagatgact aagtttgata 240
ccaatttgtt gatgaaggtt tggggaaaca aacaagacat tttgctgatg agagtgaaaa 300
gggacacagc ctccccagaa agcaatttgg taacatcttt gcaaattgta agcacacata 360
tccttcaatc cagcaattct attctgagat tttatgctac agatattttt ttatgtgtct 420
gaaataacct acatgcaagg caattcatgg acgtgttgtt tgtcatagca aaggattggg 480
ggaaaatgta aatgcccagt gattatatga actggtgctc gccatataaa ggaaagacag 540
cagaagtaca aagaacacag cagcatatct atcaggaatg agctcgag 588

<210> 1038
<211> 951
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (160)

<220>
<221> unsure
<222> (286)

<220>
<221> unsure
<222> (438)

<220>
<221> unsure
<222> (835)

<400> 1038
gaattcgcgg ccgcgtcgac gcgggagttt ttaatacaca ctaaagtgtc agttaggaat 60
taacaggtaa agaaatcaag acattaaaga ttctggatat tagtcctttg tcagatgagt 120
aggttgcgaa aattttctcc cattttgtag gttgcctgtn cactctgatg gtagtttctt 180
ttgctgtgca gaagctcttt agtttaatta gattccattt gtcaatttgg gcttttgttg 240
ccattgcttt tggtgtttta gacatgaagt ccttgcccat gcatangtcc tgaatggtaa 300
tgcctaggtt ttcttctagg gtttttatgg ttttaggtct aacgtttaag tctttaatcc 360
atcttgaatt aatttttgta taaggtgtaa ggaagggatc cagtttcagc tttctacata 420
tggctagcca gttttccntc gagattgcag tgagccgaga ttgtgccact gcactctagc 480
ctaggtgaca gagtgagact ccatctcaaa agaaaataaa ataaaaaata aatcaagagg 540
aggcagaaag gggatctgca ggagaggaaa aaaggcagca ctcccaaaag catggatatc 600
attatatttg tgaatttttg taaactgtgt gtatacgtgc acttacaaat aactttaaaa 660
atgtaaataa tgaatataaa cagagagagg cattatagat cttgacccaa atagccagag 720
tagcttctgg tcatccacac tggccactgg tttcttgtaa agggttcacg cagactttag 780
atgtaattga accatttgga gtagaaagaa atatgaatac tagtctgcaa agacngatat 840
gaattctctt ggagaacttg agcctctctt tggctggttt ccaaaacaac cagtttcttt 900
ccatgtgtga gggaggaaat tctcatgggc tgtgccagga ggaagctcga g 951

<210> 1039
<211> 221
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (163)

<400> 1039
gaattcggcc aaagaggcct agggaaatat agtaattcct aggcatttta actagtgaat 60
ggataccatg aaccataatt ggtaaattat ccaaaaatca atcatattta gctaaggaaa 120
gtggtgcaca tgtgtgtgca tgtgtgtgtg tatctgtgtg ttntataatg ggaaattcac 180
tttaaactaa tgaaagaatg atttgaaact ctgaactcga g 221

<210> 1040
<211> 373
<212> DNA
<213> Homo sapiens

<400> 1040
gaattcggcc aaagaggcct agacatatat gaggccttct ccagacttca gtaaaattgc 60
ttggttcctt gtcacaagcg caaatctgtc caaggctgcc tggggagcat tggagaagaa 120
tggcacccag ctgatgatcc gctcctacga gctcggggtc cttttcctcc cttcagcatt 180
tggtctagac agtttcaaag tgaaacagaa gttcttcgct ggcagccagg agccaatggc 240
cacctttcct gtgccatatg atttgcctcc agaactgtat ggaagtaaag atcggccatg 300
gatatggaac attccttatg tcaaagcacc ggatacgcat gggaacatgt gggtgccctc 360
cgtgaatctc gag 373

<210> 1041
<211> 755
<212> DNA
<213> Homo sapiens

<400> 1041
gaattcggcc aaagagccta gtccagcagc cgagcgttgc ccaactgaga tcaacaatgg 60
tagacccagc gatcaacttg tttttcctaa aaatgaaagg tgaactggaa cagactaaag 120
acaaactgga acaagcccaa aatgaactga gtgcctggaa gtttacgcct gatagccaaa 180

cagggaaaaa gttaatggcg aagtgtcgaa tgcttatcca ggagaatcaa gagcttggaa 240
ggcagctgtc ccagggacgt attgcacaac ttgaagcaga gttggcttta cagaagaaat 300
acagtgagga gcttaaaagc agtcaggatg aactgaatga cttcatcatc cagcttgatg 360
aagaagtaga gggtatgcag agtaccattc tagttctgca gcagcagctg aaggagacac 420
gccagcagtt ggctcagtac cagcagcagc agtctcaggc ctctgcccca agtaccagca 480
ggactacagc ttctgaacct gtagaacagt cagaggccac aagtaaagac tgcagtcgtc 540
tgacaaacgg accaagtaat ggtagctcct cccgccagag gacgtctggg tctggatttc 600
acagggaggg caacacaacc gaagatgact ttccttcttc tccagggaat ggtaataagt 660
cctccaacag ctcagaggag agaactggca gaggaggtag tggttacgta aatcaactca 720
gtgcggggta tgaaagtgta gactctcatc tcgag 755

<210> 1042
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1042
gaattcggcc aaagaggcct aaaaaaagag aaagaagact tgaagtttgt gtttgggtgt 60
tttccaggtt atccaaatat gaaagtcagt tctaccaggt ctcaaaacta cggaactaat 120
gttacatgtc agaaagtctt acaaatgagt acttatgtta tgctagtttt tcttctcttt 180
tcctattttt taaagaacaa agacattcgg ctactcgag 219

<210> 1043
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1043
gaattcggcc aaagaggcct aggccggaga aattcttaga aacattcaga aaaactcgat 60
tttaatccgg ttaaaaatca tcagtgtcat tatcatcatc atcatcacca tcataagtat 120
taatataata ataataagta atagtaacta gtaacaacaa taaaaaggaa atcagcggaa 180
agtcaggaaa aatgttaaaa aaaaattgga ataacttact cgag 224

<210> 1044
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1044
gaattcggcc aaagaggcct atgcggtttt ttgttttttt gaaacaggct ctcactctgt 60
catctaagct ggggcacagt ggcatgacca tgcctcactc caacctcgag 110

<210> 1045
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1045
gaattcggcc aaagaggcct agggtttttc tatttccgta aaaaacaaca gggattgcat 60
tgaatctgta gatcactttg gataatattg acctcttaat gatattaagt attctaatac 120
attaacatgg gacatatttc catttattta tgtcttttaa attttctttt ggcaatgttt 180
tgtatttttc attgcacaag tctttcacct ctcgag 216

<210> 1046
<211> 417
<212> DNA
<213> Homo sapiens

<400> 1046
gaattcggcc aaagaggcct agagtgaata acctggtttt gaaacagcaa aatctacctg 60

ttactcgtat tttggacaat cttatggaga tgaagtcaaa ccccgaaact gatgactata 120
gatattttga tcccaaaatg ctgcggggca atgacagctc agttcccaga aataaaaatc 180
cattccaaga ggccattgtt tttgtggtgg gaggaggcaa ctacattgaa tatcagaatc 240
ttgttgacta cataaagggg aaacaaggca aacacatttt atatggctgc agtgagcttt 300
ttaatgctac acagttcata aaacagttgt cacaacttgg acaaaagtaa cacagaagaa 360
ccttactatg ataatctact tggaatgtgg ataaatgtaa aaagaagaaa actcgag 417

<210> 1047
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1047
gtccactttc ccgcatcttc cttgacagcc tactcttttt tttttcctgt taccttttac 60
tatttctttt cgatctttgt gagtttctct tctgcccatc ccttaaatgt tgtttcctag 120
aactctgtcc ctaaccattt tctattttca cccccaactc gag 163

<210> 1048
<211> 469
<212> DNA
<213> Homo sapiens

<400> 1048
gaattcggcc aaagaggcct agggaatgag agccagccct ctgcacctgt gggtttgcat 60
cctcagattc aagcaaccat ggactgaaaa tgtaggcagg actgtgatgg ttacatctat 120
actgaacgtg cacacaatgt tttcttgtca ttatctcctg aactagacag tggaaccact 180
gtttaaactg catttacatt gcactgggca gtagaagtaa cctagggatg atttagagtc 240
tacaggagga tgtgactggt cacatgcaaa ccatgtgtcg atgtatatga gatttgagca 300
cctgtggatt ttggtatcct gggcggtgga ggctctggag ccaatctcta atggatacca 360
agggaggact gtacttggct ctggagggag ccgttctaac cactccccac actttctgag 420
aacttgggaa gcttgaggca gaggtggccc ccaagagttg gtgctcgag 469

<210> 1049
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1049
gaattcggcc aaagaggcct atcgattgaa ttctagacct gcctcgagga taactttctg 60
attcctctct gccagccgtt ttgcgtctct tggaaagcca aacggtgacc atgcttctta 120
atttatgcct tcagggtctg gcttctcctt tctcccttcc tttcctgtca caccatgcat 180
acatacatac aaatacactc gag 203

<210> 1050
<211> 691
<212> DNA
<213> Homo sapiens

<400> 1050
gaattcggcc aaagaggcct acacacatta gtccaggcct acacatgatc aggatcatca 60
acatcactgt tgatgttgat gatcccactg gaaggtcttc aggggcagta acacgcatgg 120
agctgtcatc tcctatgatg tcaatgcctt cttctggata cttcctgagg gacctgcctg 180
aggctgtttt acagttaaat tttaaaaaat ttacattgaa ggagcacact ccaaaatcaa 240
gataaaaagt ataatatagt aaatagataa accagtaaca tagtcattta ttatcattgc 300
taaataatat gtatataatt gcatgtgtta tactcttata caactggcag tgcagtaggt 360
ttgtttgcac cagcagcacc acaaacatga gtaatgcctc gtgctgctgt ttcacgaagg 420
cgatgatgtc acggtgacag gaagttttag ctccattata attttatggg aacaccattg 480
tatatagtgt ggtgttcctt gttgaccaaa acatcattat gtggtgcatg actgtatcta 540
tatttaatat ataatatgta aaatattata agtatcttta cagtagaatc caacctcttt 600
ggcgaggcat cccaggcatt tcacagttgg atccctgcct acctgttgag ccttgtcttc 660

caccatgttc ctcacccaca ccatactcga g 691

<210> 1051
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1051
gaattcggcc aaagaggcct gcgcttactg aggacctact ctgctagctg ctggggactc 60
tgtgattgaa gatctgctcc ctgtcctagc gttgtaatag tatattagta ggctaaaaga 120
taacagccat ttcccgtata gcatttgtcc atatgtataa tctcttcagc tacatcctcg 180
ag 182

<210> 1052
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1052
gaattcggcc aaagaggcct aaaaatacat gcaacataaa atttgtcatt ttaactacta 60
aatgtacaat tcagtggtat ttattacatt tacacattgt gcaaccatca ctactatttt 120
caaaactttt ttatcacccc aatcagcatc tttgtaccct ttaagtaata actccggtct 180
cgag 184

<210> 1053
<211> 131
<212> DNA
<213> Homo sapiens

<400> 1053
gaattcggcc aaagaggcct tcgagacagt ggatgggctg gagaaggaac gtgacttcta 60
cttcagcaaa cttcgtgaca tcgagctcat ctgccaggag catgaaagtg aaaacagccc 120
tattactcga g 131

<210> 1054
<211> 341
<212> DNA
<213> Homo sapiens

<400> 1054
gaattcggcc aaagaggcct agtgggcggt ttatatcttg tggagtaatg ggtgtttttg 60
aagtctgtcc tgggtactgc acattaaaag gaatatcatt ttctgaaaca ttgctatttt 120
ccacaccaga aatcatatcc tcttgctggt ccatgtctga agaccttaca cgagaaagtc 180
ttaatgtaag tttagtagag tccttggatg gagaactaat tatatcatac attgccgctt 240
tctcactctg ctctttttca tccttgccta atttcatttt cttctgcttc ttttgttttc 300
tttctggaga atctagcaag atatctggtg gaactctcga g 341

<210> 1055
<211> 130
<212> DNA
<213> Homo sapiens

<400> 1055
gaattcggcc aaagaggcct agagctttcc tacttttcag gtttaaattt atcttttttc 60
ttctaaaagt atgtttttat cttctaattt ccctatcttc tctattcttt tcttcgcctt 120
cccgctcgag 130

<210> 1056
<211> 131
<212> DNA

<213> Homo sapiens

<400> 1056
gaattcggcc aaagaggtct aggtagaata gaaacttcag catctaccaa gtcaagaaga 60
taacttggaa aacaattctg actgacattc caatttaatc acacttaatg aattctgcac 120
tgtcactcga g 131

<210> 1057
<211> 306
<212> DNA
<213> Homo sapiens

<400> 1057
gaattcgcca aagaggccta taggcctctt tggccgaatt cggccaaaga ggcctaggta 60
agatctgagc ctgccaaggc cccaggggat atggggaacc cagcagagat gagtgcacaa 120
gaagagggtg ggggcaggga ccagacagac ctggatttca acctcgcagg agctgctcga 180
ccctgggcaa tttgcttgcc ccttcctggc ttcaatttcc tatgtataaa atgaggagaa 240
taatgtcaaa tacccatatt ctgagaaaaa ccaaatactt ggattgaatt ctagacctgc 300
ctcgag 306

<210> 1058
<211> 141
<212> DNA
<213> Homo sapiens

<400> 1058
gaattcggcc aaagaggcct gcccttctct cacaatcata gagttttcta gcggtcacag 60
ggcatatcac aacagatgat gcataaagta gctatgacaa tccagctact ttctgttaag 120
ctagatatca tagttgcaaa g 141

<210> 1059
<211> 626
<212> DNA
<213> Homo sapiens

<400> 1059
gaattcggcc aaagaggcct agtagcgatg gcggctgggc cgagtgggtg tctggtgccg 60
gcgtttgggc tacggttgtt gttggcgact gtgcttcaag cggtgtctgc ttttggggca 120
gagttttcat cggaggcatg cagagagtta ggcttttcta gcaacttgct ttgcagctct 180
tgtgatcttc tcggacagtt caacctgctt cagctggatc ctgattgcag aggatgctgt 240
caggaggaag cacaatttga aaccaaaaag ctgtatgcag gagctattct tgaagtttgt 300
ggatgaaaat tgggaaggtt ccctcaagtc caagcttttg ttaggagtga taaacccaaa 360
ctgttcagag gactgcaaat caagtatgtc cgtggttcag accctgtatt aaagcttttg 420
gacgacaatg ggaacattgc tgaagaactg agcattctca aatggaacac agacagtgta 480
gaagaattcc tgagtgaaaa gttggaacgc atataaatct tgcttaaatt ttgtcctatc 540
cttttgttac cttatcaaat gaaatattac agcacctaga aaataattta gttttgcttg 600
cttccattga tcagtcacca ctcgag 626

<210> 1060
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1060
gaattcggcc aaagaggcct agctgttttt tttgttgttg ttgttgtgtt tttaatttga 60
taacttcagg aacttgtatc tgtgcgtaga gcagtgatcc agacagctgt acttttatga 120
acagtcactc tgactgccaa attagtttgt agtgcaaatc ttgagtgaga acagcacctg 180
ttctcaatgt ggatgaaaat ggcaaatgtt atgggaagca ttctcgag 228

<210> 1061

<211> 278
<212> DNA
<213> Homo sapiens

<400> 1061
gaattcggcc aaagaggcct aagaattcta gaccgcctcg agacgccacg cccagccggg 60
aattctcatt ttttatgagt attacaggtg aaatatccag acacctaaca gggcagaaga 120
ctcattttta tcaaagaaat aaaaataaat ttttgttttt ttggaaatac tgtgtaaaga 180
ttcattgtaa aattttcctc agcatgttaa cagagaaggt gttcactctc ctctgtgcat 240
ttttttccca gtttgaattg acaaggagcc gactcgag 278

<210> 1062
<211> 168
<212> DNA
<213> Homo sapiens

<400> 1062
gaattcggcc aaagaggcct aaagatgctg gggagaaaga acatgtcact aagagttctc 60
tgttccattt tctttaccat ttctttttgg aatctggctg cttttccttg ttgtggctgt 120
gacactagta tcactctctg tcccatcatc aacaccatcc aactcgag 168

<210> 1063
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1063
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc ttcctctcgc cttttccttt 60
cttcttcctg ctgtcgccga agaatttcct cctgttgtct tcggagttct tcctgcctct 120
ttcgctcttc ctcttcccgt tttgccctca tttctgcctc tcttctctct tgctctagct 180
ttgcagcttt ggccttctct agctgctgaa gctgttccag ggcagggcct ggtgtcgtgg 240
tgtccagagg aagatcccat acactaccac cttctcgag 279

<210> 1064
<211> 347
<212> DNA
<213> Homo sapiens

<400> 1064
gaattcgcgg ccgcgtcgac gcagtcctaa atatatagct ggatacttct taaccttggt 60
gtatctattc ttaatcatat ttgttgtatc tttgaatcca aaaaggttct ggttagacca 120
atagtgaaga attacgttga attaagtaat agttttcaga agtggataag atgttaatgt 180
taatggtgct atccaattgc tcatttttcat cttggaaagt ttccctattt ttattcagag 240
gaattactct gatatgttta cctatagtcc ttcccgatcc tgatatactg tctaggacag 300
tatatatgtc tatgttttcc tgttcatcag tacgtagcag tctcgag 347

<210> 1065
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1065
gaattcgcgg ccgcgtcgac ctaaaccgtc aaatttcaga acataaaaat aaatttccat 60
ttacagattt cccccttcca gttccaaaag tagttattct agagtaagta ttcaacacat 120
aaaatttagc tgaatcaaat aaaaaacaat caccaaatgc aaatatcaat tccaaagcac 180
agatttata tatactgctt tcatatttcc cttttgctgc ttttatctag aaaagaagca 240
aaaggactcg ag 252

<210> 1066
<211> 221

<212> DNA
<213> Homo sapiens

<400> 1066
gaattcgcgg ccgcgtcgac attatttttc aggttgtgct ttttccacaa aatattggtc 60
taaaaagata atgcaggttt tgcagatact ctagcatggc agaaatcaaa cttcaacatt 120
cctttggcac attttgtttt tccttaattt ttattgtgtc ttatctgtgt attttgtata 180
tgggggaagg agagagcact agcaagcatg agcgtctcga g 221

<210> 1067
<211> 203
<212> DNA
<213> Homo sapiens

<400> 1067
gaattcgcgg ccgcgtcgac aaacaattca ttctaattgt tgcctatgtt atcaagaagt 60
gtactattgt gagtaaattt cagaatttag gactgtgtga attctgatcc ttacccttga 120
tgatgtattt tcccttagct atatcactac ctttgtttgc taccagtgtt ataatgaggg 180
ttgtaggaat tcacggactc gag 203

<210> 1068
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1068
gaattcgcgg ccgcgtcgac acaggttaag agagtagatc aactgaagaa aaatataatt 60
aaaagaactg ctacgagttc cttaattttt atgacttgga agtttttctt gtttgttttt 120
gagacagggt ctttctttgt cacccaggct gcagtgcagt ggcatgatct cagctcactg 180
cagcctcaac gtccttggct cgag 204

<210> 1069
<211> 244
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (26)

<400> 1069
gaattcggcc ttcatggcct actgtnattc tctgtttttt tttttttttt ttcttctctc 60
ttttgtgagc agatctcagg ggaggtggag gaaaggacaa agggaaaggc tctgagtaat 120
ttcttcaaaa tctgtattct ttgtattaaa aatgttcatt cctattaatt ccagattgtt 180
tgcaatgtgc ctactttgcc actggcaaat tgtgacatct ctgaagtcgg ccttcatggt 240
cgag 244

<210> 1070
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1070
gaattcgcgg ccgcgtcgac gtgtcatttt tttcttatca agaagttctt ttttaaaaat 60
catccatttc ttgccccatt atggtgatgt ctttttcttaa atccttgaat ttaaagggca 120
aacaatataa ttataatatt tgtaatagcc ttttaataga tcattgcttg ctaattctct 180
catttgcatc attaatgaat ctgtttttac taaccag 217

<210> 1071
<211> 127

<212> DNA
<213> Homo sapiens

<400> 1071
gaattcgcgg ccgcgtcgac attgaattct agacctgcca cacctccagt ttaatctttc 60
accttcaaat gatgtcccca ctcagtctat ttctctcttt ctgcatattt ctcaccacgt 120
cctcgag 127

<210> 1072
<211> 755
<212> DNA
<213> Homo sapiens

<400> 1072
gaattcgcgg ccgcgtcgac gtctcttttc tgctctcctc cccttggtta catataaaaa 60
tacgtttttc agttgggcgt ggtggctcac gcctgtaatc ccagcacttt gggaggccaa 120
ggcgggtcga tcaagaggtc aggagtttga gaccagcctg atcaacatgg tgaaacccca 180
tctctagaaa aatacaaaaa ttacccaggt gtggtggcgc gtgcctgtaa tcccagctac 240
tgaggaagct gaaggaggag aatcgcttga acccaggagg cggagggtgc agtgagccga 300
gattgcgcca ttacgctcca gcctgggcaa tagagcgaga ctccatccca aaaaaaaaaa 360
aaaagacaag tttttgtgaa tatggcttaa tatcacaaac aagaatacca aagaatctat 420
caaaatgtta ccacattgat attatggcaa aggcattaac cagctctagg atttgtaatc 480
aaccagctct aaagttttta ttttacagat aaggtcaaaa cagtggttta gagagacgaa 540
gtaacttcct caaggttaca gttagtaaat atcccagtta ggattcaaag caagcttttt 600
ttgctttaga attcttcccc aggtcactgc ctcttccatc aacttcaact atttataaat 660
tctcccaagt tccccaaggg agttagattt gaatgatgta aagagcagaa acataggact 720
gactgaatga ttctcatttt tttgactctt aaagt 755

<210> 1073
<211> 580
<212> DNA
<213> Homo sapiens

<400> 1073
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagttgc 60
catctcaaaa aaaaataaaa ataaaaaata actgattcaa tccttgcaac agccctgtga 120
tgcaagtatt cttatcccta ttttacagat tgggaaatga ggcacagaga ggttaaatgc 180
cttaaccagg gtcacaggtt acatcattgg taaatggcag aaccaggact tgagaccagg 240
cagtctagct ctcctgccca tactcctaac catcacctta cacagcctcc ccccaggttt 300
tattacattc accagattat ttggtgaagg aaatcccaat tttgttatgg cgttggtaac 360
tgtcctatga actatatagt taatcttaat tccaaaagca agaagtctgt tcaagcataa 420
actcatatcc cttgaatcat ttttctagag gaacatggaa tgtggtgctg atgggatgtt 480
gctgtgtctg ttgcaaccca atattttaaa caaggtaaaa ggttatatat gagcagaata 540
agagcttaac tccaagtagc taaggagaga aaccctcgag 580

<210> 1074
<211> 322
<212> DNA
<213> Homo sapiens

<400> 1074
gatggagaga aatcacaggc tggaggatat ggagagaaat cacaggctgg aggatatgga 60
gagtaatcac aggctggagg atatggaggg taatcacagg ctggaggaca cggagagaaa 120
tcacaggccg gaggacacgg agagaaatca caggccggag gacacggagg gtaatcacag 180
gccggaggac acggagggta atcacaggcc ggaggacacg gagggtaatc acaggccgga 240
ggacacggag agaaatcaca ggccggagga cacggagggt aatcacaggc tggaggatat 300
gcagagtaac cacagactcg ag 322

<210> 1075
<211> 399

<212> DNA
<213> Homo sapiens

<400> 1075
gtttatgtca tggttggtgc agatgtcccg ttttcttctt gtttacgaga agttgaaaat 60
ccacagaatc aattgagatg tagtcaagaa atggagcctg taataacatg tgataaaaaa 120
tttcgtactc aattttacat tgactggtgc aaaatttcat tggttgataa aacaaagcaa 180
gtgtccacct atcaggaagt gattcgtgga gaggggattt tacctgatgg tggagaatac 240
aaacccccct ctgattcttt gaaaagcaga gactattaca cggatttcct aattacactg 300
gctgtgccct cggcagtggc actggtcctt tttctaatac ttgcttatat catgtgctgc 360
cgacgggaag gcgtcatcca actggtccac cacctcgag 399

<210> 1076
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1076
gaattcgcgg ccgcgtcgac cgaaatgcac ctttggcttg catttgtggc tcagtgtatt 60
ctattggaca gtcagtgcat tatatactct gacttcagtt tggcatctca atttttgaca 120
ataacatatg aggggaaatc agaagccttt ctaaaagcta cagtttggct gggcgtgcag 180
gctcatgcct gtaatcccaa cactttagga gagctcgag 219

<210> 1077
<211> 169
<212> DNA
<213> Homo sapiens

<400> 1077
gaattcgcgg ccgcgtcgac cgattaagca gttatgcatt actggggaaa ctaccttta 60
gagatttaga aaagctttag aatttagtaa atcaaataaa aataggtata caatatttta 120
gacatagggt ttcaacatgt tacatggtgt gataatggag tgcctcgag 169

<210> 1078
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1078
gaattcgcgg ccgcgtcgac cacagccagt agatgattac ttcgtgggaa ggattcctcc 60
tcttcctcgt cctcagcccc ctctactctg ctccccgggg gccaggaccg ggtggagggg 120
gctgtgggaa ggattcctcc tcttcctcgt cc 152

<210> 1079
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1079
gaattcgcgg ccgcgtcgac cctgccttgg gcaaaatttg tgtgtgtggt tattcacaga 60
ggaggagcca gataggtagc tcagtccata aactatggaa ggtagcagta tcctttactg 120
cagtggcttt caaatttgac atgcaccaaa atctcctgga gagcttgtta aaacatagaa 180
agcagggcct catcccccac gtttttgatt cagtaggtct gggttggggc tcgag 235

<210> 1080
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1080

gaattcgcgg ccgcgtcgac ccacatctct ttgctttagt ctatggtaag gctattcaaa 60
ttctacattt tcattaggcc ttcctatgct actaaaggga tttaattacg tgttcctcat 120
tctttttatt gaactgtgta tgtttttcat agtttctttg tattatgatt gtgtttcttt 180
cttctacctc cgaaagctcg ag 202

<210> 1081
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1081
ggtctgcctg cacttagaga accttacaga accatgtggc tggtgggtga gaatgactcc 60
cagcataaac ggccctgcag tgcatgtgcg gttctgagcc tcatcctttc cacaagtgca 120
tcctggagag ccagcacagc ggccccactg ggcccctgct cccctgtcct ggcctcggct 180
tcttctgtaa catccccttt tctttcatat aaacatcaac gcagactcga g 231

<210> 1082
<211> 407
<212> DNA
<213> Homo sapiens

<400> 1082
gaattcgcgg ccgcgtcgac cacgaaatcc caaatatcca gactgactcc tatgaaagta 60
tggcaaaaac cacaccaact ggtggccttc caagggaccc ccaagaactc atggttgata 120
accctttgaa tcagctctcg actctagcag ggcagttgtc cagtctgcca cccgaaaacc 180
aaaaccctgc atcccctgat gtagttccct gccctgatga aaagcctttc atgattcagc 240
agccctctac ccaagcagta gtttctgccg tatcagcaag tattcctcag agctcctctc 300
ccacaagccc agaacctcgg ccatccccata gtcaaaggaa ctatagtcca gtggcaggtc 360
caagcagtga gccaagtgcc cacacgagca ctcccagcga cctcgag 407

<210> 1083
<211> 449
<212> DNA
<213> Homo sapiens

<400> 1083
gctctgagtt ctctttattt tggtggtctc agtctctatc tttcacgttg tgaatttttc 60
tcaaatatat ggtgatccta tggatctgtt catgttttaa gagtgaggca tccaaaagct 120
gattggaagt tgtgtgtgcc aactggtgag cttttccact agggtcacca ggtgggcacc 180
tggactcatc attggagaac actgcctgtc agtatttgca cgtgttttct ctggggctca 240
ttctgtttct tgagagatat tcccactact ctccttcctg ggaaacgggc atacacaggg 300
cttttagcct atgctgagta ctcatgtggt ttcaaaaatg gtgtcccatc tgggcagaag 360
tccccatgag cacttggctt gactggcaaa ggacaccttt tgccccttcc tccagacata 420
cccagctctg agcttggaca atgctcgag 449

<210> 1084
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1084
gaattcgcgg ccgcgtcgac cacttaaaaa tgccactgtc tgtggtttcg gtataaattc 60
tgagtataac ttttcacagt gacaaaaatg attgagatgt actttactgg gtttttttgtt 120
gttgttttgt tttttgagac agtctctttc tgtagcccag gctggaatgc agtggcacga 180
tctcgactca ctgcaacctc tccatccaga ctcgag 216

<210> 1085
<211> 447
<212> DNA
<213> Homo sapiens

<400> 1085
gaattcgcgg ccgcgtcgac ggagatgttt acatttttgt tgacgtgtat ttttctaccc 60
ctcctaagag ggcacagtct cttcacctgt gaaccaatta ctgttcccag atgtatgaaa 120
atggcctaca acatgacgtt tttccctaat ctgatgggtc attatgacca gagtattgcc 180
gcggtggaaa tggagcattt tcttcctctc gcaaatctgg aatgttcacc aaacattgaa 240
actttcctct gcaaagcatt tgtaccaacc tgcatagaac aaattcatgt ggttccacct 300
tgtcgtaaac tttgtgagaa agtatattct gattgcaaaa aattaattga cacttttggg 360
atccgatggc ctgaggagct tgaatgtgac agattacaat actgtgatga gactgttcct 420
gtaacttttg atccacacac gctcgag 447

<210> 1086
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1086
gaattcgcgg ccgcgtcgac aggatgctca caactgtatt cctgagctgg acagtgagac 60
agccatgttt tctgtctacg atggacatgg aggtaacttt aacagatcat attggtaaca 120
ttctaggacc ccaattccag acgttccagg gcaagaacag gtccctttgt tcatttactt 180
tccagggtct ggccctcatt atcatttcct gcgtggtgct gtttttctgt attctgtcat 240
tcttttttcc cagcaggctc gag 263

<210> 1087
<211> 428
<212> DNA
<213> Homo sapiens

<400> 1087
gaattcgcgg ccgcgtcgac ccaaaaacca aaaacaaaaa caaaacaata acactgaata 60
aagtcataat ggtaaataac attgcgtttc tgcttggttt tagcgcctgc ttcgcggttt 120
cctgcttgct gattgcgtac ggagcaagta aaccaaacgg tgagtgtcct ctccctccat 180
cttctgtcag ggaccgggga gagagtgccc tgagctgctc ccaggcccac ctgctcttgg 240
acactgtcct gggcctgctg ctccctgctc aagttagagg ggacacctgt tacgcctcta 300
ctcagttact tatctcaaat agacggcgag atcagagagc agccacccca gacaggagct 360
tccagggtat gagcaacttc catctcatca ccaaaccaag ccagtccctc actgatgaca 420
acctcgag 428

<210> 1088
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1088
gaattcgcgg ccgcgtcgac gtagaaagca tctgtagact tccgcagaaa gcatccgtag 60
acttccgtag aaagcactga tgatgttgta taaacagacc ataaggagat tgaagccctc 120
catgtattct gtttgccctt ggaatatatg tgcatgtgca tgtgcttgtg tgtttatttt 180
catttgggtt tatgccctat ttttaatttg taggcagcaa ctcgag 226

<210> 1089
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1089
gaattcgcgg ccgcgtcgac gctgatcaac agggtgtcgt tcaaggaatg ataacaggaa 60
ttcgaggatt atgcaatggt ctgggaccgg ccctctatgg attcattttc tacatattcc 120
atgtggaact taaagaactg ccaataacag gaacagactt gggaacaaac acaagccctc 180
agcaccactt tgaacagaat tccatcatcc ctggcccaac cctcgag 227

<210> 1090

<211> 102
<212> DNA
<213> Homo sapiens

<400> 1090
gaattcggcc aaagaggcct aatggccaat aatcacaggg gcttttgaaa atacgttcaa 60
cattactaat ttttttaaga gatgaggtct tgcttactcg ag 102

<210> 1091
<211> 646
<212> DNA
<213> Homo sapiens

<400> 1091
gaattcgcgg ccgcgtcgac atcatgactg ttattttat ttgcacttgc tggtctttgt 60
agcagcattc agcacaggtg ccaaaatatg cttcatttgg ggggcagatc tattttgaca 120
gtatttgact acatatagca agagtttgaa atatgttaaa cactagacat cctggttatc 180
aaaaccaatg agcattactt tcatggcagc aagtgtcatg cagttatttt ctgaatttgt 240
caaagaggca gtagtttcta acccctgttc tatagtagtt acaacaattt cacaacctat 300
gtttacagat tcttcataaa tacatgcata ctgacactat aatcatggga ggtgtaacca 360
tgattagtag gcgaggtacc taccactttt tttttttctt cccctggcta cttgagtaga 420
atgcattata ccagatctgg tcactttcat tgaaatggtt tctaatttc ttcccaagtg 480
ctgttgggtt tttttcttct taaggaaaac gttgtcactt ttatgttata aacttgaatt 540
tataaagtgc tggtaaatta tttttaatga tttgagtgca tgttttaaac ctctaggacc 600
agagcatagt cagagcattt tcttttaaat tgtgcactaa ctcgag 646

<210> 1092
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1092
gaattcgcgg ccgcgtcgac ctgtaaattc atttgtcatt caaagcggaa taacaagttg 60
tccctagcaa aaccgctgag cgctttataa ttttgtggtg tatttttgtc agtaggtagc 120
agaggcggaa gtatttttttg gtgtaattct tgaaattttc tgacaggaaa caaataaaga 180
tagatgagtc tcgag 195

<210> 1093
<211> 709
<212> DNA
<213> Homo sapiens

<400> 1093
gaattcgcgg ccgcgtcgac atcacaggtc tgtggtggcc ccgaaatggg gggcctgcta 60
gtcaggagga tgctgtgcac actgtgtgtg atgaatctcg ccagaaaggc tcctgaggtc 120
ccaggttggc acttctccct gcagccattg tagaagatct gctggtcctt gcaggcaaag 180
ctacagccag aatgtccgtt tgaaactcct agctcatctg tcaccgagct tcatccgaat 240
gtgccacgga gcttgctctc cacttcctcc gtgcagcggc cctgccacag ccctccctcg 300
gcacactttg accctttgta ggattggaat tagcaggact cggctattta aagcaccagt 360
ctggggtcgc ctgggcccct gctgacccct tcctccagag cagccagccc agcccgggaa 420
caagacggac ttcctctccc ttcggactca cagcctttgc agagtcaagc tccacttgaa 480
gctcactcag taatatcctt tcaatgtgtt ttatattgtt ttgactgcct ttttttgtag 540
aaataaaaat tgaccttaga atttatcgtc agataaactt gtaaagattt gaatattaat 600
gtcttttcaa ggcaaatggg attgtccccg cactagtaga gaatccatgt cgctctgaca 660
ccccaaggaa gccgacgatc caaatgccgt gtgtcaccaa cccctcgag 709

<210> 1094
<211> 770
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (44)

<220>
<221> unsure
<222> (66)

<400> 1094
gaattcgcgg ccgcgtcgac gtgtttttgt ctccatataa ttcnaatttg gtctcaataa 60
gatctnatta gctgagaatt atctcagaag aaaattcaaa tcaatttact aaaaccaagc 120
aactgcaccc acagtcttct tccactgact tcctaataaa gataaaacac cagacgtcaa 180
aacctatatg aggcgagtga agcttgacat ttatgccaaa aaaaggtgtc ccctctaggg 240
aaaaaataac tgcctcctta aggactcaag atcattaatc ctcattcatc ccactaatta 300
ccttttctac tcctatccag tctcatgagg gatgatgttt tattatgttc ctcctgttgg 360
aggggctaag ccattgtctt ctactcaata aatttttact gagcttctat tatgtatcag 420
gaactgtgcc aggcatggag gctaaaaaca tgtataatta tagtagtaac cttcattgag 480
tactgactat gtgccagcta ttttaaatgt attatctttt aaatcctccc aacagcccta 540
ttcaaatagg tactattatc acccccactt tacagatgag gaaatcgatg cacagagaaa 600
ttaagcacct tgcttatggt cataagtggt agaagtagaa ctttaaacct acttttctct 660
agtaccagag tcaaaacttt cattgtaaca tgtacattac tgtgataagg attttgccgt 720
atctcatgtg attgtcacag aaaacaccat aaggcagggg caacctcgag 770

<210> 1095
<211> 774
<212> DNA
<213> Homo sapiens

<400> 1095
gaattcgcgg ccgcgtcgac caatttatgt ggcatttaaa gaattttgaa attcattgta 60
ttttgtttat cctttttcta tgagtattcg aatttctatt ctcgtcttaa tatcagagat 120
tttaatttgt tcttatagtt agttaactta aacctgtggc ctaggttagc cattaactga 180
attagttcag attatttatc ttaacctatt gttgcgtata gtattttagg tttttgttga 240
gatggatact attgtatatt taaaaatgca tagaacttgt caaagatagc ttaatttgcc 300
tttctacctt cataaaaatg ttaaaagtta agggattttt aaaatgtcat tagatattct 360
tatctgaatc atttatatat taccataaat cacagttgta ttaagtcagc catgaagatt 420
tcctccttaa tgcaaatgaa cgcataaggt atctagaaag cgttaatttg tgagggaaca 480
aattaaagcg gttagaattg ctgtggagct gtatatgata gatgaaatat tttaattgaa 540
gacacaaata gttctaatat ttctaatgag aaagtgtgta gatcatttaa tgtcgtagga 600
gaccaaagta gaaatttgga aaaagtaaaa atgactccta aattacccag caagttgtaa 660
agatacacct ttctcagcat gcattctcat gatagcataa caatgtataa tatatctgat 720
tactgtcata attgactacc ttgaaagata atggttctaa gggtcaaact cgag 774

<210> 1096
<211> 618
<212> DNA
<213> Homo sapiens

<400> 1096
gaattcgcgg ccgcgtcgac gtagtatgtt cttttttggg aacagggtag gcattttgtt 60
tattgtttgc ttgcttctag gtgttttcgc catcagggtg tattggaggc tgacacttaa 120
tgggtgtgtg ttacgcccag aactgctcgg tgtcggggtt ctaaaagaat gcgctggtgt 180
tcttggcttc aagtttctgc tttggagaag cagattcagg aagtaggtgt tgcttaaaaa 240
taattcttgg tttttatcta atcagatatt cattgattac ctaccaggtg ccagttatag 300
ggtgttttgt ttactcaaga atgaagtaga actattttta aaacctgttt ccatgagtgt 360
tcacgttagg tgacctaagc tttgaaggag aaaaacattt tctgggtatg aataatgagt 420
tttgtaatca attcccagtt agaagaattt cagtctctgg gccattgagc ttggcagtgt 480
tgagatctcc catgtgacag aagcctggca tctgggccac caaggctcac tgactgtgta 540
ccttgcagac tgtagaccca tgtcgtggcg gtaacggggc caaacacagt cattcccatg 600
tgaacgatga aactcgag 618

<210> 1097
<211> 863
<212> DNA
<213> Homo sapiens

<400> 1097
gaattcgcgg ccgcgtcgac gtttcagctg gattatgggt tggtattggt catatgttag 60
actccataca ggcatagcta tgatgcagtg aatcccttag aagttacaat tctcaaatta 120
catacttcct cagatgtaac attagaactc aatatttcta acaataacat accagaaaag 180
gctggactgg cactcatctg ctgactaact tgtagcctca gtaatatgac atacttgcct 240
ttaacaaatt atctcaaatt aactaacaga ccttcagaaa atggagattc tttttgatgg 300
ggacataatc aaatttaagt ctgagaaata tgcttaacag ttggaactca aattaaatgt 360
actgatttta aagtttagac attaacaagt gatagattag cctcaaaaaa agacaatttg 420
gtaaggttta ggtcttttaa tttggtgctt gttcacaact tgactggtgc ttctttcctt 480
gctgtcttca catcaagcca tggggccaat tctattttca gtaaatgttt gacagctttt 540
tacttagtaa cagtctcagc acttttatta agcatgcaag actaacaaaa actttggcaa 600
tgcataagtg taacacagtg acaagagagc ttttacaatt aagtcttcta atactgcctt 660
cacagtgtgg aaattgtgct acatccacca aaagagggcc ccgtctactc aaatatttcc 720
gtacttcacc ccaggaacaa actcctttgc atttggattc agattgctct tgaccacaag 780
atcttccaga gaagagccat cactgataac aaggtcatta aactggtctt ggatttggtc 840
catagtttgt gggagatctc gag 863

<210> 1098
<211> 663
<212> DNA
<213> Homo sapiens

<400> 1098
gaattcgcgg ccgcgtcgac cgcagcccca tggctggggg ttatggagtg atgggtgacg 60
atggttctat tgattatact gttcacgaag cctggaatga agccaccaat gtttacttga 120
tagttatcct tgttagcttc ggtctcttca tgtatgccaa aggaacaaaa aggagaatta 180
tgaggatatt cagtgtgcca cctacagagg aaactttgtc agagcccaac ttttatgaca 240
cgataagcaa gattcgttta agacaacaac tggaaatgta ttccatttca agaaagtacg 300
actatcagca gccacaaaac caagctgaca gtgtgcaact ctcattggaa tgaaacctca 360
gaaaaagagc aacagaagta attgtttcaa gctcctgatt ctttctacta aatcatgaac 420
agctttaaaa acatttctgt ctgcataaaa ttattttact tgtaactttt ccccaattgt 480
tctgtgcatt gttttgcctt tttaaattac atctccaagt ggctcaaaag gccttgacac 540
agggaacctg cacatatcca ggatatgtgt aaccagcgat ggtgacttga ccttgccaag 600
acctgtgatt ccttcaggat acaatcagtg agaaataaaa acacatcttg ggaagtgctc 660
gag 663

<210> 1099
<211> 536
<212> DNA
<213> Homo sapiens

<400> 1099
gaattcgcgg ccgcgtcgac atcttgagag acataagcca catattgttt agtcaacaat 60
ctcaaatgca gtggtttttt tgacacgctc ctcctgggct tttatgtata ccacagaatc 120
agccacgtta cagtttgaat taatcatttt cttcaaaagg agtcccagaa gtgaacccaa 180
acaaaaagct actatccctt tacagttgga aagtagaaga cactggtgat gtactcagct 240
ttcatctttt atccttcgat gataaattga cccaaatgta cctctggcca ggaagaagca 300
aggaatttaa atagtactag atgtcaaaca atactattaa aatacttcca atttgaatat 360
cacatcacag ttttgaaaat gcatcttcat ttattattgc tttgttctcc tgtagtacaa 420
aagggaaaac tgaggttaca catctaggaa tcaaactcat gtcttctaat tcttgagcta 480
tatctacttt ggtctatagc ttctaaattt gtaatagaag ctcagaaata ctcgag 536

<210> 1100
<211> 586
<212> DNA

<213> Homo sapiens

<400> 1100
gaattcgcgg ccgcgtcgac ctcagagtgc gcccaatctt ggaatcttta agggatgagc 60
cagacccaga cccgcggcct tctagagagg gtccggcagg gagggtcggc gccctggccc 120
ggggtgggcc ggagccctgt gatgctgcat cgcccccagg aggagccagc tgtgccccag 180
agttggcgcg gccgagagag gacaagagcg cgcagcaggc gaagctggag ggcgggactc 240
gactttgttg tcgctgcccg gaggagtcga gactggtacc cggaggagct gtctcaccag 300
gagaccacgt cctggaagtg tccgggactc gcgggacctg tggctgcaga ccccgccggc 360
acgcaggccc agagctggcg cactcctgag gatgagactc tgggggccct agccggggtc 420
cacgggaggg ctgtccttgg ggactctagg atggcttcgt tctggcccgg ctcacttctg 480
gagctgtgag acccaagaca aaagggggctg agggatttct cattgacaag agttcgtgcg 540
ggaaaaccac ctgaccccta gggatttgtc atcttggact ctcgag 586

<210> 1101
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1101
gaattcggcc aaagaggcct aaaccgtcga ttgaattcta gacctgctgt tttgaattcc 60
tgcaaactct ctctctcttt tttttttctt ttaaatggtc gcactttgtt gcccaggctg 120
gagtgcagtg gcacgatcat ggctgactgc agcctcaacc tcctgggttc aagggatcct 180
cccagctcag cctcccaagt agttgggact acagccgcac cactcgag 228

<210> 1102
<211> 905
<212> DNA
<213> Homo sapiens

<400> 1102
gaattcgcgg ccgcgtcgac ctacttttct tggaaatgca aaagattatg catatttctg 60
tcctcctttc tcctgtttta tggggactga tttttggtgt ctcttctaac agcatacaga 120
taggggggct atttcctagg ggcgccgatc aagaatacag tgcatttcga gtagggatgg 180
ttcagttttc cacttcggag ttcagactga caccccacat cgacaatttg gaggtggcaa 240
acagcttcgc agtcactaat gctttctgct cccagttttc gagaggagtc tatgctattt 300
ttggatttta tgacaagaag tctgtaaata ccatcacatc atttgcggga acactccacg 360
tctccttcat cactcccagc ttcccaacag atggcacaca tccatttgtc attcagatga 420
gacccgacct caaaggagct ctccttagct tgattgaata ctatcaatgg gacaagtttg 480
catacctcta tgacagtgac agaggcttat caacactgca agctgtgctg gattctgctg 540
ctgaaaagaa atggcaagtg actgctatca atgtgggaaa cattaacaat gacaagaaag 600
atgagatgta ccgatcactt tttcaagatc tggagttaaa aaaggaacgg cgtgtaattc 660
tggactgtga aagggataaa gtaaacgaca ttgtagacca ggttattacc attggaaaac 720
acgttaaagg gtaccactac atcattgcaa atctgggatt tactgatgga gacctattaa 780
aaatccagtt tggaggtgca aatgtctctg gatttcagat agtggactat gatgattcgt 840
tggtatctaa atttatagaa agatggtcaa cactggaaga aaaagaatac cctggaactc 900
tcgag 905

<210> 1103
<211> 497
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (24)

<220>
<221> unsure
<222> (32)

<220>
<221> unsure
<222> (124)

<220>
<221> unsure
<222> (325)

<400> 1103
gaattcgcgg ccgcgtcgac gacngacacc anaccagaga tccaggaagc tcagagaaca 60
tcaagcagga taaatgccca aaaaactaca tctaggcata aaattttcaa atgacagaaa 120
atcnaagaga aagaaaaatc ctgaaagagg aaaaaataaa caaccttact cagagaggaa 180
caaagataag aattacttcc agcttttctt cagaaaccat gaaagcaaga gaagagtgga 240
gtgaaatatt taaagtgttg aggccgggca cagtggttca cacctgtaat cccagcactt 300
tgagaagcca agacagaaag atcanttgag atcagcctgg gcaacatggt gaaaccccat 360
ccctacaaaa aaaaaaagtt ttttaattag ctgggtatgg tggtgcacac ctgtggtccc 420
agctgagtgg ccctagagtt tgtaatatac agctaaccca agtccacttt caaataacac 480
tataccactt cctcgag 497

<210> 1104
<211> 683
<212> DNA
<213> Homo sapiens

<400> 1104
gaattcggcc aaagaggcct actctttggc cggccaaaga ggcctatggg actctgcgcc 60
accctcgcct gctcgcacca gccttccgag tgcacactcc tccgactacc cgctgcctcg 120
aagtcgctcc tccagtgcct ccgccgcgtc ccggtcaccc ccacgcccac tttccacgat 180
cgcgcgtcgc ctcaaccccc ggcgttctgg gcgctcgcta cccagtggtc aaccggccgg 240
accttcggac ccgcgaggtt tctgcttagt aactcccaat cctgaaaaac tccaaccctg 300
tggagttccc ccataatcaa gaacgcccct cagcccgcga actgccgccg aaagactctc 360
cctgaacctt ccgggacggc acgaagcgcg cccgacccga ggtgcccagc agtgaggagc 420
accccagtcc tgaggccccc tggggcccgc gtggcacgcc ccgactctgc ttggagaccc 480
ccaacttgct tagagaggcc actgctccaa gtcttactcc ctctggggag cgccttcccc 540
cgacccctga ggggccgccc tgcgccgagc tcggtgcacc caccttgcgc cgcagaagta 600
tctgggacgt gcagccccgg ggccgcgcgg gctcggcgcg cgctggggag aagttggcag 660
aagccgcccg tcaacacctc gag 683

<210> 1105
<211> 970
<212> DNA
<213> Homo sapiens

<400> 1105
gaattcggcc aaagaggcct agaagaattt ccagtgacat ttgtaaatga cgccgctcga 60
ttccaggctc caagcggccg ctgccgccgc cgccgccgcc gggccgaagg tgccgccgag 120
cagtctccag cgcaggcttc cttaccgggc gaccacaatg tccgagtttc tcctcgcctt 180
actcactctc tcgggattat tgccgattgc cagggtgctg accgtgggag ccgaccgaga 240
tcagcagttg tgtgatcctg gtgaatttct ttgccacgat cacgtgactt gtgtctccca 300
gagctggctg tgtgatgggg accctgactg ccctgatgat tcagacgagt ctttagatac 360
ctgtcccgag gaggtagaaa tcaagtgccc cttgaatcac attgcttgcc ttggtaccaa 420
caaatgtgtt catttatccc agctgtgcaa tggtgtcttg gactgcccag atgggtatga 480
cgaaggagta cattgtcagg aactgttatc caattgccaa cagctgaatt gtcagtataa 540
atgtacaatg gtcagaaata gtacaagatg ttactgtgag gatggattcg aaataacaga 600
agatgggaga agctgtaaag atcaagatga atgtgctgtt tatggtacat gcagccagac 660
ctgcagaaac acacatggat cctacacttg cagttgtgtg gaaggctacc taatgcagcc 720
agacaacaga tcttgcaagg ctaaaattga acctacagat agaccaccta tactattaat 780
tgcaaatttt gaaacaattg aggttttcta tcttaatgga agtaaaatgg caactctaag 840
ctcagtcaat ggaaatgaaa ttcatactct ggattttatt tataatgaag atatgatttg 900
ttggattgaa tcaagagaat cttcaaatca actcaaatgt atccagataa caaaaacagg 960

aggactcgag 970

<210> 1106
<211> 120
<212> DNA
<213> Homo sapiens

<400> 1106
gaattcggcc aaagaggcct acgagaggcg tgtgagtaaa aaggaacagg acagcatcgc 60
aattggttgt taaggtgctt ttgaaaaaaa aaattatttc gagtgatgtt gctcatgcag 120

<210> 1107
<211> 541
<212> DNA
<213> Homo sapiens

<400> 1107
gaattcggcc aaagaggcct actggatttg gactaaagaa aaaaggaaag gctagcagtc 60
atccaaaaga atcatgagac agactttgcc ttgtatctac ttttgggggg gccttttgcc 120
ctttgggatg ctgtgtgcat cctccaccac caagtgcact gttagccatg aagttgctga 180
ctgcagccac ctgaagttga ctcaggtacc cgatgatcta cccacaaaca taacagtgtt 240
gaaccttacc cataatcaac tcagaagatt accagccgcc aacttcacaa ggtatagcca 300
gctaactagc ttggatgtag gatttaacac catctcaaaa ctggagccag aattgtgcca 360
gaaacttccc atgttaaaag ttttgaacct ccagcacaat gagctatctc aactttctga 420
taaaaccttt gccttctgca cgaatttgac tgaactccat ctcatgtcca actcaatcca 480
gaaaattaaa aataatccct ttgtcaagca gaagaattta atcacattag atccactcga 540
g 541

<210> 1108
<211> 950
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (316)

<220>
<221> unsure
<222> (412)

<220>
<221> unsure
<222> (431)

<220>
<221> unsure
<222> (463)

<220>
<221> unsure
<222> (492)

<400> 1108
gaattcggcc aaagaggcct attcagattt cttttttgc tcttttaaga ggacatttcg 60
ctactgattg tgatattttg ttttgcagag taacagctat ccaccaatgt cagatccata 120
catgcctagt tactatgctc catccattgg atttccatat tctcttgggg aagcagcgtg 180
gtccacagct ggagaccagc ctatgccata tctgacaacc tatggacaaa tgagtaatgg 240
agaacatcac tatataccag atggtgtatt tagtcaacct ggggcattag gaaatacccc 300
tccatttctt ggtcancatg gatttaactt ttttcctggt aatgctgatt tctctacatg 360

ggggacaagt ggatctcagg gacaatcaac acaaagttct gcttatagta gnagttatgg 420
ctatccacct ngttctcttg ggagagctat tactgatgga cangctggga tttggcaatg 480
atactttgag tnaggtgcct ggcattagca gtattgagca aggcatgact ggactgaaaa 540
ttggtggtga cctgacagct gcagtgacaa aaactgtagg tacagctttg agcagcagtg 600
gtatgactag cattgcaacc aatagtgtgc cccagttag cagtgcagca cctaaaccaa 660
cctcctgggc tgccattgcc agaaagcctg ccaaacctca accgaaactt aaacccaagg 720
gcaatgtggg aattgggggt tctgctgtac caccacctcc tataaaacac aacatgaata 780
ttggaacttg ggatgaaaaa gggtcagtgg taaaggctcc accaacccaa ccagttctgc 840
ctcctcaaac tataatccag cagcctcagc cattaattca accaccacca ttggtgcaaa 900
gccaactgcc tcaacagcag cctcaaccac cacaaccaca tcagctcgag 950

<210> 1109
<211> 627
<212> DNA
<213> Homo sapiens

<400> 1109
gaattcggcc aaagaggcct acaggggaaa agtaagctcc tccaaagttg cttgcagtgc 60
tggaaataga tctcattttt aggtttttctc ttcgttccag ataccaaata aatgggacag 120
agaataaaat ttttgttaaa atatgtgctc atctcctaag tagctcttca gagtctgacc 180
gtaagtaaaa acacacagaa ttgtgttgac tgggggaggt gaatcacaaa aaagttacga 240
ggagtttaag agttaaatat tatttgatcg tggctgtcaa atttagtgaa caacatagat 300
tggatttgga gttggtagta ggtatggttc tcataccaga attctcttaa aaaaaaaaaa 360
aaaggacaat tggaattgcc ttatttattt ttaaaatcaa tgcttactag ttggtaggat 420
tcccaggtca gcagcagggt tgattaaata atcttgacaa tgagcagctg ccatcttggg 480
ggatttcatt ctgtggtttt ttaaatgttt cgtctttgat gctaccatcc agggcttctt 540
attgtgacct tgtagcctat tttgttcctg ctgttctcta acatggtgca gttcacgcag 600
actggtttag gtacttcccc actcgag 627

<210> 1110
<211> 844
<212> DNA
<213> Homo sapiens

<400> 1110
gaattcggcc aaagaggcct agatcgcaga tcataaagca agctctgctt tagtttccaa 60
gaagattaca aagaatttag agatgtattt gtcaagattc ctgtcgattc atgccctttg 120
ggttacggtg tcctcagtga tgcagcccta ccctttggtt tggggacatt atgatttgtg 180
taagactcag atttacacgg aagaagggaa agtttgggat tacatggcct gccagccgga 240
atccacggac atgacaaaat atctgaaagt gaaactcgat cctccggata ttacctgtgg 300
agaccctcct gagacgttct gtgcaatggg caatccctac atgtgcaata atgagtgtga 360
tgcgagtacc cctgagctgg cacacccccc tgagctgatg tttgattttg aaggaagaca 420
tccctccaca ttttggcagt ctgccacttg gaaggagtat cccaagcctc tccaggttaa 480
catcactctg tcttggagca aaaccattga gctaacagac aacatagtta ttacctttga 540
atctgggcgt ccagaccaaa tgatcctgga gaagtctctc gattatggac gaacatggca 600
gccctatcag tattatgcca cagactgctt agatgctttt cacatggatc ctaaatccgt 660
gaaggattta tcacagcata cggtcttaga aatcatttgc acagaagagt actcaacagg 720
gtatacaaca aatagcaaaa taatccactt tgaaatcaaa gacaggttcg cgtttttttgc 780
tggacctcgc ctacgcaata tggcttccct ctacggacag ctggatacaa ccaagaaact 840
cgag 844

<210> 1111
<211> 832
<212> DNA
<213> Homo sapiens

<400> 1111
gaattcggcc aaagaggcct agttgtgtcc ttcagcaaaa cagtggattt aaatctcctt 60
gcacaagctt gagagcaaca caatctatca ggaaagaaag aaagaaaaaa accgaacctg 120
acaaaaaaga agaaaaagaa gaagaaaaaa aatcatgaaa accatccagc caaaaatgca 180

caattctatc tcttgggcaa tcttcacggg gctggctgct ctgtgtctct tccaaggagt 240
gcccgtgcgc agcggagatg ccaccttccc caaagctatg gacaacgtga cggtccggca 300
gggggagagc gccaccctca ggtgcactat tgacaaccgg gtcacccggg tggcctggct 360
aaaccgcagc accatcctct atgctgggaa tgacaagtgg tgcctggatc ctcgcgtggt 420
ccttctgagc aacacccaaa cgcagtacag catcgagatc cagaacgtgg atgtgtatga 480
cgagggccct tacacctgct cggtgcagac agacaaccac ccaaagacct ctagggtcca 540
cctcattgtg caagtatctc ccaaaattgt agagatttct tcagatatct ccattaatga 600
agggaacaat attagcctca cctgcatagc aattggtaga ccagagccta cggttacttg 660
gagacacatc tctcccaaag cggttggctt tgtgagtgaa gacgaatact tggaaattca 720
gggcatcacc cgggagcagt caggggacta cgagtgcagt gcctccaatg acgtggccgc 780
gcccgtggta cggagagtaa aggtcaccgt gaactatcca ccatacctcg ag 832

<210> 1112
<211> 466
<212> DNA
<213> Homo sapiens

<400> 1112
gatggagccc agcaccgcgg cccgggcttg ggccctcttt tggttgctgc tgcccttgct 60
tggcgcggtt tgcgccagcg gaccccgcac cttagtgctg ctggacaacc tcaacgtgcg 120
ggagactcat tcgcttttct tccggagcct gaaggaccgg ggctttgagc tcacattcaa 180
gaccgctgat gaccccagcc tgtctctcat aaagtatggg gaattcctct atgacaatct 240
catcatttc tcccttcgg tagaagattt tggaggcaac atcaacgtgg agaccatcag 300
tgcctttatt gacggcggag gcagtgtgct ggtagctgcc agctccgaca ttggtgaccc 360
tcttcgagag ctgggcagtg agtgcgggat tgagtttgac gaggagaaaa cggctgtcat 420
tgaccatcac aactatgaca tctcagacct tggccagcaa ctcgag 466

<210> 1113
<211> 668
<212> DNA
<213> Homo sapiens

<400> 1113
gaattcggcc aaagaggcct aagcagagca gaatgcaggg gttactgtgt tgaacaaaag 60
gcacacatca gagagacagt tgcaaactca gaatactgcg ttatgggcaa aactaactgg 120
tccacaagag aaaatgagag actcgatttg gctgccagga acacctgggc ctaggcaaga 180
acacaagagg tttctggggg tggggaggaa ataggtctcg ctgaaggtga cagatcccctt 240
ggggggcggc cagctgtctg gatcactgtc cagggactgt ggccagccca gatacctccg 300
aggtgagtcc agatcactag gagcagcagt ctgtcggtgg gatgcgatgg atggcgatgg 360
ctgtggcagc gcaggtctgt gggcagaatg atgtagtcgt ctggcagtct ggtggggagg 420
agagggcttg gcagcggcgg cagtgggtgg tctgtccagt gtgtaacagg agcccagctt 480
gcagctggag cgcaggacag cgtccaaatg tacatgggag gggctggctg gctggaagga 540
gagggcggcg gctcgctcca gagtgaggcc caggggcggc agcaggagcc tggagcgcta 600
ttcctggaac aaaggcaagc actacgcggg agggaacagg agcgcagggg acatcgcggc 660
ggctcgag 668

<210> 1114
<211> 395
<212> DNA
<213> Homo sapiens

<400> 1114
gaattcggcc aaagaggcct agttgaatgt atatatcaag gcttaaaatc ctcatttggt 60
ttgcaacaga atagttgtta taagtttatg atttgggagc caatgaaaat agtgtcattt 120
ttcccctgta gaataaaagc tcaaggtagt gtcaagtctt cagaaagtaa acttagcaca 180
gtgggtctca aactctgcag tgcgttaaaa ctacagattt ttggggcctg gccccaagat 240
tctgcccacg taggtctggt gggtagccca gggatgtttg ttttaaacaa gcactgcagg 300
tgattttttt tgtttttact tttatttttt tcttgagcaa ctttgagtcg aaagcagatg 360
atttttagta aatgatttat gcactacagc tcgag 395

<210> 1115
<211> 658
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (461)

<220>
<221> unsure
<222> (573)

<220>
<221> unsure
<222> (578)

<220>
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<222> (590)

<400> 1115
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gctcaattct gctgacttga tatattactt tagatttaga gaatcccaag ggatagctct 180
ctggatatta tgttaattaa tagtctttgc cccctctcct cttctattag gtaggaaaac 240
attttctaga gaatagaaag aagtcctctc ataacctggt gttttcccct ctcggttatg 300
tattagataa ttagataaat tggaccttat aatctatctg ttaagttcct gttataccta 360
gattatatct tggttcttct gcttgaatct caacatcaca tatttgtcca tttaaagtcc 420
tttcaaactg agctcttttg caaacagctt cctatgcagg naaccagagt tatttactag 480
gtccttaaca tgaatcccca aattttattt tagatgatac tgaatttttg tgcctttgcg 540
aaagtcatgt taaatatgtt aaaaccatac cgnaaagntt aacacacacn tacaccaaaa 600
aaaaaaccat actaaaaaaa atacccaaag aaaaactcat aataccaggg cactcgag 658

<210> 1116
<211> 559
<212> DNA
<213> Homo sapiens

<400> 1116
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catcctgcaa ctgaagcagc agcgggacaa gctgaggcag taccagaaga ggatcgccca 180
gcagctggag cgcgagcgcg ccctggcccg gcagctgctg cgggacggca ggaaggaacg 240
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agtgatggag gggctgcagt ttggaaatga gtgtctgaac aagatgcacc aggtgatgtc 420
cattgaagag gtggagagga tcctggacga gacgcaggag gccgtggagt accagcggca 480
aatagacgag ctcctggcag gaagcttcac tcaggaggat gaagacgcca tcctggagga 540
gctgagcgca acactcgag 559

<210> 1117
<211> 486
<212> DNA
<213> Homo sapiens

<400> 1117
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ttagttcatg tttgttaaat gactacaact gggaaattat gtctactgtc cttttgtaca 120
agttcaaaag atgacagcca cccatctaaa aatcctgagg cctatagaag atgcatgagg 180

agtccctgtc tccaggttta ccacttatgc ttcttattag gatggcttgt tatacatagc 240
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tcctgaggga gccatgtctg tagtctctgt ggagacctca gatgatggga ccactcggcg 420
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ctcgag 486

<210> 1118
<211> 903
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (325)

<220>
<221> unsure
<222> (334)

<220>
<221> unsure
<222> (345)

<400> 1118
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agaagaatcc gccatgggct actcagttta cagccactgc agtatcacag ccagctgcac 180
tgggtgttca acagccatca ctccttggag catctcctac catttataca cagcaaactg 240
cattggcagc agcaggcctt accacacaaa ctccagcaaa ctatcagtta acacaaactg 300
ctgcattgca gcaacaagcc gcagntgcag cagntgcatt acaancagca atattcacaa 360
cctcagcagg ccctgtatag tgtgcaacaa cagttacagc aaccccagca aaccctctta 420
acacagccag ctgttgcact gcctacaagc cttagcctgt ctactcctca gccaacagca 480
caaataactg tatcatatcc aacaccaagg tccagtcaac agcaaaccca gcctcagaag 540
cagcgtgttt tcacaggggt ggttacaaaa ctacatgata catttggatt tgtggatgaa 600
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ttggttgaag ctacttataa tcctaatatg ccttttaaat ggaatgcaca gagaattcaa 720
acactaccaa atcagaatca gtcgcaaacc cagccattac tgaagactcc tcctgctgta 780
cttcagccaa ttgcaccaca gacaacattt ggtgttcaga ctcagcccca gccccagtca 840
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gag 903

<210> 1119
<211> 1018
<212> DNA
<213> Homo sapiens

<400> 1119
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agtcatgaaa agtaccttat agctttaaag agctctggac ttacatatcc tgaggataag 120
cttgtatatg gtgtgcagga gccatctgct ggtactagtt ctctggctgt tcaaggtttc 180
ataggcgcaa caggaacttt gggacaagtg gattcttcag atgaggatga tcaggatggt 240
agtcaaggtc tgggcaagag aaaaagggta aaactaagca gtggcaccaa agatcaatcc 300
ataatggatg ttttgaagca taaaagcttc ctagaagaac tattattttg gactataaaa 360
tatgaattcc ctcaaaagat ggtaactttc ttactcaaca tgcttccaga tcaagagtat 420
aaggttgctt ttacaaaaac ttttgttcag cattatgctt tcattatgaa aacactgaag 480
aaaagtcatg aatcagacac aatgtctaac agaattgtgc atattagtgt tcagttgttc 540
agcaatgagg agctagccag acaggtaaca gaagaatgtc agctgctgga tattatggtc 600
actgtgctat tatacatgat ggaaagttgc cttattaaaa gtgagctaca agatgaagaa 660
aatagtttac atgtggtagt gaactgtgga gaagcattac tgaagaataa cacttactgg 720

cctcttgtta gtgattttat taatattctt tctcatcaaa gtgtggccaa gagattttg 780
gaggatcacg gtttgttagt tacatggatg aactttgtat ctttctttca aggtatgaac 840
ttaaacaagc gagaactaaa cgagcatgtg gaatttgagt ctcagaccta ctatgctgcc 900
tttgctgctg aacttgaggc ctgtgcacag ccaatgtggg ggcttttatc acattgtaaa 960
gttagggaaa ctcaagagta tacccgaaat gttgttagat attgccttat agctcgag 1018

<210> 1120
<211> 452
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (65)

<220>
<221> unsure
<222> (71)

<220>
<221> unsure
<222> (348)

<220>
<221> unsure
<222> (387)

<220>
<221> unsure
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tgtaacaaca gttataattt gaaagagtct tccaaatgtg aacattctgg cctagaaccc 180
ttcccatctc catcaaccca gtgggcaaga atgctcaaat tttcagaaga cagtctttcc 240
taggacttgt aaaacaaaat gtacaaaata tattagttta ctaactctag ttttgttata 300
cactggcaac ctctttaaca tccagaaaga ctagatgttg taaattanga ctcgtttgtc 360
ctttatgtac attatataca tagatanaac aaaatgcaca gacatagtga ttcatcttgc 420
ctcgctgtaa gcaggatggn ntaaagctcg ag 452

<210> 1121
<211> 427
<212> DNA
<213> Homo sapiens

<400> 1121
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tcaaactgta ttcagtctct cgtgtcaatg gaaaatggtg tgttacagat agaaaattct 120
aaagaagatc tcacatttca aaattaatac ctaattttac tcagtaatta catttatt 180
caaacatatg cccttacaat tagtcttgaa tttgaatcta agtttcataa cttctgggta 240
agatgaccat ttagtaaact gcctaccaat tttagtttac ttatctgtta agcaccatag 300
tatttatgat ctatataaga ttgtaatgaa aactacattt ttgtaaaaca ccatacatag 360
tgctcagtat gttcttccct cctgccattt cttatatttc ttgattaata cctttaaata 420
actcgag 427

<210> 1122
<211> 453
<212> DNA
<213> Homo sapiens

<400> 1122
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acattatcca ggcctagtca gtagcagtag ggtaacggga ttgaaaaaga tttgatggag 120
aggaaagtat ctaatattag tcatggtttt gacctaaatt gctagacagt cgtgccattc 180
acaaagtcag aaaatacagc aggaagagac agcttttaga ggggcagaga attagaggat 240
ggtggtagta atgaaaatga tgcattcagt ttaacaagtt taatttgaga cagctatggt 300
atagctaaaa acaaaagccc ataaagttgg agatagggac cagagtttaa catagcgatc 360
taggccagaa ttgacaatgt ttaagtaatg gtggaatctg tcaataagac ttcccagagt 420
gttaatatat atcagaaatg cacccaactc gag 453

<210> 1123
<211> 709
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (22)

<400> 1123
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gaaattgccg accttagtaa catcatcaat aaactactaa aggacaaaaa tgagttccac 120
aaacatgtgg agtttgattt ccttattaag ggccagtttc tgcgaatgcc cttggacaaa 180
cacatggaaa tggagaacat ctcatcagaa gaagttgtgg aaatagaata cgtggagaag 240
tatactgcac cccagccaga gcaatgcatg ttccatgatg actggatcag ttcaattaaa 300
ggggcagagg aatggatctt gactggttct tatgataaga cttctcggat ctggtccttg 360
gaaggaaagt caataatgac aattgtggga catacggatg ttgtaaaaga tgtggcctgg 420
gtgaaaaaag atagtttgtc ctgcttatta ttgagtgctt ctatggatca gactattctc 480
ttatgggagt ggaatgtaga gagaaacaaa gtgaaagccc tacactgctg tagaggtcat 540
gctggaagtg tagattctat agctgttgat ggctcaggaa ctaaattttg cagtggctcc 600
tgggataaga tgctaaagat ctggtctaca gtccctacag atgaagaaga tgaaatggag 660
gagtccacaa atcgaccaag aaagaaacag aagacagaac aggctcgag 709

<210> 1124
<211> 135
<212> DNA
<213> Homo sapiens

<400> 1124
gaattcggcc aaagaggcct agtgggggga ttgcaaatga aggaactttt tacatggatc 60
tttttaatct cagttggttg ggggaggggg gtacttggtt cttgggtcac acaagctcta 120
tcccaacatc tcgag 135

<210> 1125
<211> 899
<212> DNA
<213> Homo sapiens

<400> 1125
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acattctgta tctcctgacc ccgtacatgc acagcctccc ccactatcag cgtcctcccc 120
cagagtggat ttgttaaaat tgaagaccct acactgatac agcatcatca cccaaagtcc 180
atagttttca ttagagttaa ttcgtggtgt tgtgcattct atcagtttga caaatatgta 240
atcacatgca tctgccatta tagtgtcata cagaatagtt ttactattct aaaatcctct 300
gtgccccacc tattcatctc ttcttctctc ttaacccctg gcaccactgg tcttttcact 360
atcttcatag ttttaccttt tccagaatgt cttatagtta gaatcatata gtatgtagcc 420
ttttcagatt ggcttctttg atttagtaat aagcatttat gttttcttca tgtcttttca 480
tggcttgata gctcatttct ttttagtgct gaataataat ttattgtttg catataccaa 540
agtttatcca ttcacctact gagggatatc ttgattgctt caaagtttcg gcaattatga 600
ataaagcttc tgtaaagatt catatgcaga tttctgtgtg aacacaagtt ttcaacccat 660

ttgggtaaat accaatgaga gtgatagcta gatcattgtg gaaagctttt aaaccacaaa 720
tttagtttct ctaactattc agtttatctg tttctttttt agtgagtttt ggttgtgttt 780
ttcattgagc ctgtgcattt tatctgagtt gttaaattta ttcccatgaa gttgttcata 840
atattccctt tttattcttt taatatctat aggatctgtc atgatgtccc gagctcgag 899

<210> 1126
<211> 447
<212> DNA
<213> Homo sapiens

<400> 1126
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tgctgccagt cctgcctgaa aacgcgaaat gagtcttgct tggttctccc tccactgggc 120
gtgagagccc ctgcccagga ggcccaggac aaatggcccc atagtggaaa ctgggaagct 180
tttaggcatc tgatcagagc gggagccagc cgggggacca cagtgctgga caggccaacc 240
aactcaaact tgaagacatg aaatccccaa ggagaaccac tttgtgcctc atgtttattg 300
tgatttattc ttccaaagct gcactgaact ggaattacga gtctactatt catcctttgg 360
aaaaaaaccc tgaagctcag cgaggataag taacttcccc aaggtcacaa agccacagaa 420
gtcttcatga acatgaacca gctcgag 447

<210> 1127
<211> 449
<212> DNA
<213> Homo sapiens

<400> 1127
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cccaggatgg gtctccaaat gattgtgaat caatagagga cttgttaaat gagctaccat 180
atccaattga tattgccaat gagtctgcat gcaccactgt tcctggtgtt tccctgtaca 240
gtagtcaaac tcatgaagaa attttagcgg aattattgtc tcctacacct gtttcaacag 300
agctgtcaga aaatggggaa ggtgacttta ggtatttggg aatgggagat agtcatatcc 360
caccaccagt accaagtgaa ttcaatgatg tttcccagaa cacacatctg agacaggacc 420
ataattattg tagccccacc ggactcgag 449

<210> 1128
<211> 278
<212> DNA
<213> Homo sapiens

<400> 1128
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tttatgacat ttctgttttc ctaacaccta acagaaatgt gctcttccat ggaatagata 120
tttaatacat tatttatttg taacattttt agttattttt taaaaaatag atgatttatt 180
tacaagtcag gaaatcctag taaaaatgct cccatccttg tcttcaatct actactcagt 240
ttctaatgct cctcctgtag ataaccactg tactcgag 278

<210> 1129
<211> 305
<212> DNA
<213> Homo sapiens

<400> 1129
gaattcggcc aaagaggcct acacatttgg ggccacacac tatgtccatc tttccctctt 60
tggtgatgtt aatttatcac ccaatcaaga tataagtcca tttctccacc gtgtaattgc 120
tgttttattt tttcgttgca actaacaagc agtctgtgac aagatagttc aagaccatct 180
tagcatccag ctgcagaccc acttttgact ctagtaaaat agatggccac ctgtttgcat 240
gatttcagga gcacaagaaa ggcacaaagc ttctggaata aagatatatc ccctcttccc 300
tcgag 305

<210> 1130
<211> 385
<212> DNA
<213> Homo sapiens

<400> 1130
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cactgttact aaaaagacga tgcgtcctcc tggacctgag atctgtgtga tcgtgggaaa 180
gcgacgaaaa acgaacaaag gaacagtaaa tggagtaact tggctagaat atggcagtaa 240
ctacaaggca tgttctgctc tggcacgaag acaacccacc tgaggcacca gacacatgag 300
tgaagccatc ttggacatcc cagtcacagc caaactcact cctgagtgca tctgcatgat 360
gaacccagca atccccactc tcgag 385

<210> 1131
<211> 337
<212> DNA
<213> Homo sapiens

<400> 1131
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aagtcctgag ttgaggcttg cgggatcctt tccggagaaa gcgcaggcta aagccgcagg 180
tgaagatgtc caactacgtg aacgacaagt ggccgggctc gccgcaggag aaggattcgc 240
cctcgacctc gcggtcgggc gggtccagcc ggctgtcgtc gcggtctagg agccgctctt 300
tttccagaag ctctcggtcc cattcccgcg tctcgag 337

<210> 1132
<211> 459
<212> DNA
<213> Homo sapiens

<400> 1132
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gggcaggagc acctttccag cattagggtt gctgggatcc acataggcct gcatgggata 120
acctggtggg taaccagcaa agggatgatg cggggcatta taaccaagag agtcataggg 180
cagtggtgat gtcattccca ggttctgcat ctgttgctgt tgtttctgag cctccccgttg 240
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aattcgtact ttctttttag aagttggtgt atcatatctg tcatctggcc tttttgttcc 360
ccgctcatag gcagaagagg gtggtgagag ggagcttctt cgtttccttt tctctttatt 420
ttgagtttgc ttgtctgggt ctctctctct tccctcgag 459

<210> 1133
<211> 681
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (154)

<400> 1133
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tgggcaccca tggaccaagg agctctgccg caanctttgc ttggcccgag gccctatgaa 180
gaagccttga gccctgccag accacctgcc tggttccctg cagtctttccc ccaagcactc 240
tctgctaagg cagtcccctc cttgataacc cagcccctgc tttcccaagg aagtagcctg 300
ccccagatga ccccggcctc ctcagggcct gggggaaaat gctgaagaca gtgccacgag 360
gccactctgc caggcgtctc tcccctgcat ttcccagccc tcccaggtcc agccccagag 420
agttgtttcc accaggggcc tcctggtcct caggcccctc ctgtgtcctg cgaagggcct 480

gtcctggaga cagcctgtgc cctccgtcac cacagcctta ggctcaggcc accaggatgt 540
ttctttggcc tctggcagcc ccagctgggg tgcccctagt ccacccaaca catgcacaac 600
acacatgtac tcaacacaca catctacata tacccaacac atgtacacaa tacgtacact 660
caatatacaa cacacctcga g 681

<210> 1134
<211> 299
<212> DNA
<213> Homo sapiens

<400> 1134
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acgtattcac tcttctggtt tttcccagga accacttcaa acttgataga cgtgtcaccc 180
atcccatggt ttcttttaag gcactcgtgg aggatctgat atggagacaa cagcccagcc 240
ttgctggtca gctcgtagac ccgcgagtcc tcgatgctga tgtggttaaa atactcgag 299

<210> 1135
<211> 606
<212> DNA
<213> Homo sapiens

<400> 1135
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taagtgatgg atcttgtact ccgtgttgca gattactatt tttttacacc atacgtgtat 120
ccagccacat ggccagaaga tgacatcttc cgacaagcta ttagtcttct gattgtaaca 180
aatgttggtg cttacatcct ttatttcttc tgtgcaacac tgagctatta ttttgtcttc 240
gatcatgcat taatgaaaca tccacaattt ttaaagaatc aagtccgtcg agagattaag 300
tttactgtcc aggcattgcc atggataagt attcttactg ttgcactgtt cttgctggag 360
ataagaggtt acagcaaatt acatgatgac ctaggagagt ttccatatgg attgtttgaa 420
cttgtcgtta gtataatatc tttcctcttt ttcactgaca tgttcatcta ctggattcac 480
agaggccttc atcatagact ggtatataag cgcctacata aacctcacca catttggaag 540
attcctactc catttgcaag tcatgctttt caccctattg atggctttct tcagagtcta 600
ctcgag 606

<210> 1136
<211> 469
<212> DNA
<213> Homo sapiens

<400> 1136
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gatccttgtc actggtattt ttatctctgg taggactgga ataggggctg gggcaggtga 120
cctggctgaa tgtggaaaag aggactgtgt acagaggtca cccctgtggc tagctgagaa 180
gagtggaaag gagaggtgaa gtgctaaaac tggggtcggg gagaagcctc aggtatggag 240
gaggatgggg cctctgcgaa gatgtggtgg ttaacagcca tgaggcttta gagctggaga 300
gaccctgctt cctgaatggg gtcttgggca gctcccttcc ctgctccgag cctcaatttc 360
cccatttgta aaatagggag gatgctccct acttcataag gctgcttgtg gggcagaaag 420
ataaacaggg tcggggcccc tccaagcggc tgggcgaagt gaactcgag 469

<210> 1137
<211> 113
<212> DNA
<213> Homo sapiens

<400> 1137
gaattcggcc aaagaggcct acagctacct ttatcctcat ctcccaccgt ctcctttctt 60
atctggcttt ttctagtttc caactccttt catgaagcat gtccccgctc gag 113

<210> 1138

<211> 575
<212> DNA
<213> Homo sapiens

<400> 1138
gaattcggcc aaagaggcct acccagagtg acggcatgtg gaggcgtcaa tgcatctacc 60
tccagcacac caggcatgat gtcaggtgca gcaggaggta cctggcccct tgctacacag 120
accacatggt cttgctgggg acaagaccta gggaacagct cattttggta cagtgtggtt 180
ggttcctgga gagggagagg gaatagccca cgggctaagc agcccactgc aggtacctaa 240
tgcaaccagg aaggtcaggg aaggagatgg ccagccacgc ggtggagttt gaacatcatg 300
tagcagttag ccaggtgaag aggagatgct ggggagacag ggagaggcca ctcctggctg 360
agggacctgt acctgcaaag actctcaggg gaggaggacg gctttctgtc actgtttctg 420
tgtgtgaggg aaatcagagg gtaggcccgg ctgtcccctg cctttcctgt ggggcctgac 480
tgcacgtacc ccctctcccc aaaccctcca ggagttctga gtctctacct ggatcttgat 540
tccactggca tgaaatctgt gaatctcacc tcgag 575

<210> 1139
<211> 113
<212> DNA
<213> Homo sapiens

<400> 1139
gaattcggcc aaagaggcct actagaatat taaatatact cagtaaattc tgtgaccttt 60
gcaaaggtca aataaatttc aaatagttat ttcaaaaaat gggcactctc gag 113

<210> 1140
<211> 108
<212> DNA
<213> Homo sapiens

<400> 1140
gaattcggcc aaagaggcct agttgttggt agtggtggtg gtagtggtat gtgtgtgttt 60
gtgttggcaa tgctaagaaa cacacacaca cacacacacg gactcgag 108

<210> 1141
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1141
gaattcggcc aaagaggcct acgttttctt agtttaaaaa acaagtgaaa agagacatta 60
tttgtgttct cactaaattg catttttgca tttccatcaa ggcagctagc ttgacagaat 120
ttactccagg caccgtgcag tgcacacttt tatgtttggt gacacctttc aaattactaa 180
cttatgggcg aggtgcagtg gctcacgcct gtaatcctcc cagcaccatt ctcgag 236

<210> 1142
<211> 520
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (56)

<400> 1142
gaattcggcc aaagaggcct ataggcctct ttggccgaat tcggccaaag aggccnagtg 60
aagtggacag gttgaggtgg tctttctatt cgtcattcac tcttatttgc aggttctgtt 120
tcatgtactt ggacgtcttt tagcctctca caccttgaaa ttctagtgtg aaaaagtgac 180
ctctgaagtc tcacgcactc aactcgtttg acgaactcgt ttgacgtgtt ctctcttgcc 240
ctttgttgtc tgttgtcttg agtctcatag aataggtttg aacctttcac tgtcggtttt 300

gtaggagtca ctgaggatat tgacgaggca agtgacaggg tcgacactct tgtagagagg 360
ctgtatagca accaggtgtc tgaaggatta gaggctgggg aaagagtggg aaagcagtta 420
gtaggctagg gtatttgtgc gtgaggtgag gagactcaga gctaggggag acattagagc 480
aggggttggc aaacattttt tgtaaagggc cgtactcgag 520

<210> 1143
<211> 706
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (28)

<220>
<221> unsure
<222> (396)

<400> 1143
gaattcggcc aaagaggcct aagatcancg tgcggggtgt gaagataggc gtcaaggccg 60
atgactccca ggaggccaag gtgacttctt ccaacccagc cccttccttc catggcccca 120
agctctcccc caagacttgc gatgaagagg ccatctcctg tcaccctcac tgcaggccag 180
gtgaccgccc tcttgcttct tttctccctc ctgtagggga ataaatgtag ccactttttc 240
cagttaaaaa acatctcttt ctgcggatat catccaaaga acaacaagta agtgggggtg 300
ggatggcagt ggaggaggca cgggtggtct gcagccttga ggtgggtggg tgtgggccga 360
gccccccgtcc cagcacagac agacctgtcc ctgcangtac tttgggttca tcaccaagca 420
ccccgccgac caccggtttg cctgccacgt ctttgtgtct gaagactcca ccaaagccct 480
ggcagagtcc gtggggagag cattccagca gttctacaag cagtttgtgg agtacacctg 540
ccccacagaa gatatctacc tggagtagct gtgcagcccc gccctctgcg tcccccagcc 600
ctcaggccag tgccaggaca gctggctgct gacaggatgt ggcactgctt gaggaggggc 660
acctgccacc gccagaggac aaggaagtgg gacggccgaa ctcgag 706

<210> 1144
<211> 290
<212> DNA
<213> Homo sapiens

<400> 1144
gaattcggcc aaagaggcct acgagaatgt ggggcacgaa ggttgagctt ggtgatgtgg 60
tgactataat aacccttctgt gttgttgtgt ttgttgtctg tgttgatggt ttagtgaagg 120
ttatttttac aggagacatg tggggtggta aggagttggc aatgctctgc atgatgttgc 180
tcatcttggg actaccactc acaggcacag tgatcgtctt tgagactgga acaacggcct 240
ttggaacttc ctttagaaca acaggagagg agctggagag gcagctcgag 290

<210> 1145
<211> 146
<212> DNA
<213> Homo sapiens

<400> 1145
gaattcggcc aaagaggcct acgagggtag ggaaataaga actacagaga gctcaagaac 60
aattaggcaa ggagatgaga atgaatatgg aaaatctagt taggaatgaa gatattctac 120
attcagagga agcaacgtcc ctcgag 146

<210> 1146
<211> 721
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (9)

<400> 1146
gaattcggnc aaagaggcct aggctttttc agggtagcag tttattattt atttccatac 60
tttgtgtttt atcccatcaa tctgctcttt caatttggct tagagttata gaatgttcga 120
gctggagaaa ccacatttte tgagaaacat tttatataaa ttctgataac agttgtatga 180
acttctattt cttcaagaat catgataagt tttatcatat aggtcccaag aaaaatctag 240
gtacagtaac aactggagat caggaatatt tttctaaata tttcttgcat tgtactttta 300
taatgagtct tttttcaatt aaagtgaaaa gcatcaaagc atgatagatt tttttacctg 360
agaaaatggt cttttcattt atatttgaat aaaaattcaa atttaaaact tcaccataaa 420
agtcagtaat gttgacaact tgtcagcacc tacttcatag attgataccc acactataat 480
ttagaatgtg gaagttaaaa tagtatctac accctgaata ataaataaca tgcactaaag 540
acttttcttt tatggaactc tattagtgtc cttcctaaaa ataaaatgaa atgaactttc 600
ctaaagtgta gtaatattag tactatctaa gtcatcatcc tggccttatg aaatattggc 660
attttctact ggtgtaactt ttattagaag catctcatca taactagtag gatttctcga 720
g 721

<210> 1147
<211> 563
<212> DNA
<213> Homo sapiens

<400> 1147
gaattcggcc aaagaggcct agtgtgaagt ggttggcgtc ggccgcagat gaccacaccg 60
tgaagctctg ggatctcact gccggcaaga tgatgtctga gttccctggt cacacggggc 120
ctgtcaacgt ggtcgagttt caccccaacg agtacctcct ggcctccggc agctctgaca 180
ggacaatccg cttctgggac ctggagaagt tccaggtggt gagctgcatc gaaggggagc 240
ctgggcccgt caggagcgtc ctcttcaacc cagatggctg ctgcctgtac agcggctgcc 300
aggactcact gcgtgtctac ggctgggaac ctgagcggtg ctttgatgtg gtcctcgtca 360
actggggcaa ggtggccgac ctggccatct gcaatgacca gttgataggt gtggcctcct 420
cccagagcaa cgtctcctcc tacgtggtgg atctgacgcg tgtcaccagg actggcacgg 480
tggcccggga ccctgtgcag gaccaccggc ccctggcaca gccactgccc aaccccagcg 540
cccccctccg gcacaatctc gag 563

<210> 1148
<211> 199
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (72)

<400> 1148
gaattcggcc aaagaggcct atctatgtaa agtgatactt ctttctgtac aagaaatatc 60
acttctccct cnccccaccc aacaaagaaa aagttaaaaa ccagtattcc ttcaaagtca 120
tggggatacc attggcattt tgaatgggac agttcccttg gcagtggaac tctactgctt 180
atctctggcc caactcgag 199

<210> 1149
<211> 319
<212> DNA
<213> Homo sapiens

<400> 1149
gaattcggcc aaagaggcct acattattct tattcttaca ttcattgtgt ttgcatttga 60
ctgctacccc tatgtcattc tcaactcaaa tcatggtttg ttccactccc acatggctac 120
ttagagggca aattcctaaa tactgccaga gaaaataaga atagagtgac aataataccc 180
ttttgtttca gctttacata tgttctcgtc agtctttgca aatactgtga tgctctataa 240

gatggggaaa tagaagttag tgaatttctt tagaatatca gtaagtaaat aattgctttt 300
ccaactgtca acactcgag 319

<210> 1150
<211> 316
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (82)

<400> 1150
gaattcggcc aaagaggcct agccccttac tctcatgttg ctcttttctc tcctcctcgg 60
tctttctctt tttatctctt tnatttatct catccagcgg ttggcaaacc tttcctttct 120
tagctctgtg tccgccagcc tcctttgcct ctcggacagc aagctctttc cagggccacc 180
gtttcctcct ctgctattct tttctcacgg agagtggaag ctctcatggt gcttccagaa 240
gcaattctgt tcctctcctt tggggctgag ctcttctctt caatcctggt tccatgatgc 300
agaagaggca ctcgag 316

<210> 1151
<211> 544
<212> DNA
<213> Homo sapiens

<400> 1151
gaattcggcc aaagaggcct acagagtaaa agtgtttatc aaaaagctct ttaaaatatg 60
tatgctgttt gaactagcag ttccgctttt aggaatctat cctggggcaa aagaaataga 120
tcagtgggtt aagattaagt tataatagca aaggaaaaaa ggactaaact caaatgtgca 180
gcaaaaggag acttactgat aactcacagt tcatttctat aacagcataa tatacagctg 240
ttaaaaatta tgtagcaccg taccaaatgg tatggaaata ggtttgtgga attgctaaat 300
agataaaaaa tttaaatgaa actaaataat atgtttagca tgattccagt tttgaaaaaa 360
aaaaacgaat gtagataaaa tgagtagagg aatatacact aaaattatta tggtagttat 420
ctttggatgg taggatttaa atacttttcc tttttttctt gataccattc tgtattttcc 480
aaatctacac taaaaacaag ttttgacaaa aataattcat tctttaagga aaaaagcact 540
cgag 544

<210> 1152
<211> 682
<212> DNA
<213> Homo sapiens

<400> 1152
gaattcggcc aaagaggcct aactggttcc tttattttta tgtttattta tttgggacgg 60
ggtctggctc tgtcacccag gctggagtgc agtggtgcaa tcactgctca ctgcagcatc 120
cacctcccag cgtccaccca tcctcctggc ctcagcctcc ggaacagctg ggtacaggt 180
acgccccagc ccgaacaggt tttcactagg ttgcctgggc tctttctttc tttgtctgtg 240
tttgtttgtt ggttggttgg ttggttggtt ggtttttgtt tgtttgtttc gagacggggc 300
tccggctctg ccgccggggg ctgcagtgca atggcgcgat ctcacctcac tgcggccttc 360
tgggctcaag cgatcctccc actgtgcccg gcctgaagac agcctttaga gaaagaagca 420
gggggagttc ttccgaggac agacaagatt tctggagttt ggaaagggtg agagactggg 480
tcagcgaaag gaacattccg gtctttatgt tgggatgcaa cgtatagata cagggatgag 540
acccaaaaga gccggcagag gtttgtcatc gtgctcgcaa ggcaactgcc ggtggctgat 600
cccgtaaagg atacacatac ctagagcgga gcctaaagat gcatccagca tgacgggtgg 660
agccacgatg cttggactcg ag 682

<210> 1153
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1153
gaattcggcc aaagaggcct acaaacattc caagattatt atatttttga aatttgggga 60
ttgttttgaa gttgataaaa tatttcatat tagcaattta ttgagaagtt gaaagaaaaa 120
catgatgctc actttaagaa caagtatagg ccgggcactc gag 163

<210> 1154
<211> 116
<212> DNA
<213> Homo sapiens

<400> 1154
gaattcggcc aaagaggcct agtcattgat actatttaaa agaagggatt tcttctctca 60
atttggagaa catgacatat aagggaaaaa gtctaaatgc ctccacctgc ctcgag 116

<210> 1155
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1155
gaattcggcc aaagtcgagt tttccttgaa aaataaaaga tattgcaccc atgaaataag 60
aagagatgag gataatgcta tttctctccc tctttagttt tttggtttgt ttctttgctt 120
gtttaagaca tacagtttca cgctttctcg ag 152

<210> 1156
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1156
gaattcggcc aaagaggcct agctacgcta aaaaataccg agaagatata tggagttgct 60
gtttacactg gaatggaaac caaaatggct ttgaactacc aagggaaatc tcagaaacgt 120
tctgctgttg aaaaatctat taatgctttc ctgattgtat atttatttat cttactgacc 180
aaagctgcag tatgcactac tctaaagtat gtttggcaaa gtaccccata caatgatgaa 240
ccttggtata accaaaagac tcagaatgag ctcgag 276

<210> 1157
<211> 272
<212> DNA
<213> Homo sapiens

<400> 1157
gaattcggcc aaagaggcct aagcgaatct tctgcaggcc cttggcaaac tccatctcca 60
gcgtcgtccg cttctccagg tagctgatga ggtccttcat gtacttggcc atgttcttgg 120
catacagcag tgcggcatcc acgccccccct cacagcgctg tagcagcacg tccacctcct 180
cggcgggcag gcagccggcg tcacagtcat ccaggctggg aggcgtgccc tcactgcccg 240
gtccatacag gctttccatg gactggctcg ag 272

<210> 1158
<211> 304
<212> DNA
<213> Homo sapiens

<400> 1158
gaattcggcc aaagaggcct agtttgtgag tgcgaagtac caattaaggt gtcttaaatt 60
tggcgcatag aggagagaag gaaacctgag gagtagtgtt cctcctgaat gaaggttcag 120
gtcaccagcc ttctgtacac tgcctttggt tttagcagtt ctttgaaaag caaacacttt 180
catgtcctgt ctattcattc agctggctgt gctgtgctgt ggaccagctg tgtggatctc 240
tagcccagct acagcagaat acatttacc agcaaaccta aggatgacaa acacccgact 300
cgag 304

<210> 1159
<211> 297
<212> DNA
<213> Homo sapiens

<400> 1159
gaattcggcc aaagagccta tttaaacagt caagtaaaat caagctgggt aatcatggca 60
gaaggtggat ttgatccctg tgaatgtgtt tgctctcatg aacatgcaat gagaagactg 120
atcaatctgt tacggcagtc ccagtcctac tgcacagaca cagagtgtct tcaggaatta 180
ccgggaccct ctggtgataa tggcatcagt gttacaatga tcttggtagc ctggatggtt 240
attgcattga tcttgttctt actgagacct cctaatctaa gaggatccac cctcgag 297

<210> 1160
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1160
gaattcggcc aaagaggcct aataaaattg agcaagtaaa gtttgggttt taattttcct 60
ttgcctgaac caagatagga aattacttaa gagttttttt tttttttttt tttttttttt 120
ttaggaatga aaggtcataa gccattagaa atagtggcat tattatgcaa taacaacacc 180
ctagctaacc tgcttttgtc atctgtagca cttacaataa agaatgatga ccttccaacc 240
ctggacacta cctcgataaa gcaaaccaga gatctcgag 279

<210> 1161
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1161
gaattcggcc aaagaggcct agattgcttg agcccacaag ttggagactt cagtgagctg 60
ttgatcgcgt gccactgcac tacagcctgg ctgacagagc aagatcctgt ctcaaacaga 120
caggcaaaca attaactaga gttggagccc taccttacac cgtgtggaaa cacaaattac 180
aaggagagtc ttagatcaaa gctttaaact ttatagaata aaatataaaa gatgatgact 240
ttgggctggg tcctcgag 258

<210> 1162
<211> 452
<212> DNA
<213> Homo sapiens

<400> 1162
gaattcggcc aaagaggcct aatacatccc acatttgtt gttataacag ttagtagtta 60
gtattgcttt catatataga ctccagaatc taaattttac gataatgaca tttcttctgg 120
tcatgacaaa tgtaatattt tacaaatata aatctacgta gaatccaaag acacacacgg 180
agcagtcctg tctgagaaat aaaaaatcag gacacccatg gcatcgtagt agcccctcgc 240
gtccagcagg tggcgaaggg aggtgaggtt tatttattaa atgggaccga gtgggacggg 300
gacggggcag ccctaagggt agggaagcat tgtcaatttc tggggataga atgagaccca 360
ggcatagctg gagtttgaag ctttgaagca aaaatatctg tagaacatct taaacgtgac 420
caaaatatga tgttaaaatc agcaatctcg ag 452

<210> 1163
<211> 300
<212> DNA
<213> Homo sapiens

<400> 1163
gaattcggcc aaagaggcct agggattttc aggtgttttc atttggtgat caggactgaa 60
cagagagaac tcaccatgga gtttgggctg agctggcttt ttcttgtggc tattttaaaa 120
ggtgtccagt gtgaggtgca attgttggag tctgggggag ggttggtaca gcctgggggg 180

tccctgagac tctcctgtga agcctctgga ttcaccttta gtagttatga catgagctgg 240
gtccgccagg ctccagggaa ggggctggag tgggtctcag caatcagggg gagcctcgag 300

<210> 1164
<211> 326
<212> DNA
<213> Homo sapiens

<400> 1164
gaattcggcc aaagaggcct atgcttgtat aggaataaag acaaagtcat ataaaaaaat 60
ggggaaaatt gaacactact cacccatagt cctgagtatt ttaaagagcc ttcgtagagc 120
attcaaaatc gggtaagaaa aatggggaaa aataaaatta cttaatcttt aaaaggaaga 180
caagcgtatg ctcacctaat tggacttata taatcaggct tgctctagct tatccagaat 240
cagagtacag gccgggcgca gtggctcatg cctgtaatcc cagcactttg cctaaaccgt 300
cgattgaatt ctagacctgc ctcgag 326

<210> 1165
<211> 285
<212> DNA
<213> Homo sapiens

<400> 1165
gaattcggcc aaagaggcct actcctgcac aagaacatga aatacctgtg gttcttcctc 60
ctcctggtgg cagcccccag atgggtcctg tcccaggtgc ggttacaaca gtggggcgca 120
ggacttttga agccttcgga gaccctgtcc ctcacctgcg ctgtctatga taagtcctct 180
agtggttact attggagttg gttccgccag tcccccggga aggggctaga gtggattgga 240
gaaatcaatc agagtggaaa caccaactac aacccgtccc tcgag 285

<210> 1166
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1166
gaattcggcc aaagaggcct acataattta accattcccc tgtgttggaa agaaataccc 60
aaacctttcc taataatcag tattgcaatg accattataa caccttcatt tttttttttt 120
tttttttttt taacattttg ttgtatttac tttatggagc ggctgtgtgt ccagtatgtc 180
cgaccctctt cctcggttct gggctcgggt ggggggttccc ttggcaaact gcaggcccct 240
ggctgggacg cccctgctgc cagcgccggc agcctcgag 279

<210> 1167
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1167
gaattcggcc aaagaggcct aagcaggcta accgtggaca agagcaggtg gcaggagggg 60
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 120
ctctccctgt ctctgggtaa atgagtgcca gggccggcaa gcccccgctc cccgggctct 180
cggggtcgcg cgaggatgct tggcacgtac cccgtctaca tacttcccag gcacccagca 240
tggaaataaa gcacccacca acactcgag 269

<210> 1168
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1168
gaattcggcc aaagaggcct acggtatttg gctgttgtct acccttttgaa gtttttttc 60
ctaaggacaa gaagatttgc actcatggtc agcctgtcca tctggatatt ggaaaccatc 120

ttcaatgctg tcatgttgtg ggaagatgaa acagttgttg aatattgcga tgccgaaaag 180
tctaatttta ctttatgcta tgacaaatac cctttagaga aatggcaaat caacctcaac 240
ttgttcagga cgtgtacgaa gctcgag 267

<210> 1169
<211> 414
<212> DNA
<213> Homo sapiens

<400> 1169
gaattcggcc aaagaggcct aatgccttcc tggaaatttt catttgcctc tattcctatt 60
gtattatttg ggttctttcc atatttgttt gttcaagatt ctctcatcat taaaaacaaa 120
taaacaaaaa cctctactta accctcctca tcccattact gctctacttc tcttccttca 180
taaccaagta ttatctacat gcattgtctt cacatcctgt tattaattcc ccaatgcatt 240
aaattctggc tcatcgtcct actacttctc gctgccattg aagctcctct ttccagagtc 300
actggttact tcctatttgt gaaatcagta ggaagctttt cagtcccagt cctactggac 360
ctctcagcag ctctggccaa tgctgaccac tcccccaatc cagaaacact cgag 414

<210> 1170
<211> 372
<212> DNA
<213> Homo sapiens

<400> 1170
gaattcggcc aaagagccta gtgtcttgtc cagatgctgc atcagctgct gcacccagag 60
ctcctttggg tctgcacata gctctgcctg agagcgcttg cggggcaaga acaggatagc 120
tgggatggag cagcctaagc ttggttcctg cttccggtag ctgcggacaa ccttggcggg 180
aatcttcctt tggctgtact tgaggcaaca gtcctgagcc cctccatcac tgccttgggt 240
cctggggatg ccaaaggcca gaaccaggat aaggaggctc agagccagtg actgagccat 300
gtctgtggta gagggtgagt aagaggccag agctgagggt gaggtgggca gctgcaagtt 360
gggggtctcg ag 372

<210> 1171
<211> 330
<212> DNA
<213> Homo sapiens

<400> 1171
gaattcggcc aaagaggcct agtttttttg tggttttgtt gttgtacatg ttatagttgt 60
tacaaactca acaatacatt actacaatta ttacttttac atcatttaaa gaaaatgaac 120
aaaggaaagc aaatatatat ttgtagcttt tgttatagta accttattta tcatttcagg 180
ttgtttgttt atttttcttg tggattcatt accatctgga gtaattttgt tttctttttc 240
tttctttttt tttttttgg agggataaca gggtcttgct ctgttgccca ggctgctgga 300
gtgcagtgtc atgaatacat ctcactcgag 330

<210> 1172
<211> 356
<212> DNA
<213> Homo sapiens

<400> 1172
gaattcggcc aaagaggcct agtttttttt ttatatattc tggatattaa ttatacgtat 60
gttttgcaaa tattttttct atttcataag ttgccttttc actctgttgt ttcctttgtg 120
gtacagaaat tttaaagttt gatgtagttc tatttgttta tttttgcttt tgttgcttgt 180
gtttttgtgt catattcaag aaatcatcac caaattcaat gttaggaagc ttttttttatt 240
tttattttta tttttaata gagacagggt ctcaggctgg tctcgaactt ctgggctcaa 300
gtgattctcc taccttggcc tcccaaagtg ctgagattac aggtgtcaag ctcgag 356

<210> 1173
<211> 297

<212> DNA
<213> Homo sapiens

<400> 1173
gaattcggcc aaagaggcct ataggcctct ttggccggcc aaagaggcct attcaaattg 60
tgtttttaac cttttagtat ttcttgttaa atttcttttt aaggtggatt tgacgtacta 120
aataatacaa attgataaat aggtttttag taacgtactg taaagtgtag gcagagagaa 180
gcattctgta gtcctatagt taggtctctg acgtctggta agcctatgcc cctgaactgt 240
aaacttcacc agtgcttctt agaccgtcct cttgtagaaa caggtaactg cctcgag 297

<210> 1174
<211> 259
<212> DNA
<213> Homo sapiens

<400> 1174
gaattcggcc aaagaggcct aattttattg caagtaaatg tatttcaaaa tttgttattg 60
gttttgtatg agattattct cagcctactt cattatcaag ctatattatt ttattaatgt 120
agtttgatga tcttacagca aagctgaaag ctgtatcttc aaaatatgtc tatttgacta 180
aaaagaagtt attcaacagg agttattatc tatgaaaaaa atacaacagg aatataaaaa 240
acttgaagag gatctcgag 259

<210> 1175
<211> 345
<212> DNA
<213> Homo sapiens

<400> 1175
gaattcgcgg ccgcgtcgac gaggggttta tctcctccaa aaaaaaaaaa aaggtgcttt 60
aagtaataat tgagttgcta taaatttggg tataaattca aattttaatt gatttgcatt 120
ttacaaagca cgaagaaaat ttgtcattaa aaaatggtaa tacatttcat aaacatttat 180
tttataacat tatacctttc caatgtagct ttttggttgt tccctttttt tgtttgtttg 240
tttgtgacca agtcttgctg tcacccaggc tggagtgcag tggtgtgtga tcacggctca 300
ctacagcctt cacctcccag gcccaagcaa tcctcccaac tcgag 345

<210> 1176
<211> 272
<212> DNA
<213> Homo sapiens

<400> 1176
gaattcggcc aaagaggcct agtgtttttt ttagaaaaaa atgcttttga gaaatggatt 60
cattacaggg aaattatcaa agtccagttt cccaaagctt ccggattata aacatctaca 120
tattcagttc tatacatgta ataaacatcg tgttcacata actcttgcat tattttttgc 180
tttgaccaaa aaaagtagta aacaggatta tatctttagt tcatgtacta aatgacagcg 240
tctcacactc tcagatccag ctgcatctcg ag 272

<210> 1177
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1177
gaattcggcc aaagaggcct atcgagtggg gtgcagaggg aagctggggc cttggggtcc 60
ccaggggcat ggggagggaa ataaataata aacaccatgg gggataagga gccaggagga 120
atgggggtgt gaatggggag gtgctcgatg cttatttgtg gcactaaagg tcttgcaaga 180
tgccccctga ctgggggccg tgtccatgaa ttctcgag 218

<210> 1178
<211> 728

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (72)

<400> 1178
gaattcggcc aaagaggccn aggtaccact ttttaaagct agctgtgtcg agttaaagaa 60
aaaatcagca gntttttctc ccagaaatgt aattgccaaa cactattcat ccccatctta 120
agttttacaa ggtgatgtaa tcagcttgtt gtagtgatgc tggccaaatg gtgctcagca 180
ggtgagaaca aaaaaacccc agatttcagt gaactaatac acagcttgag cgtttccatg 240
tgctaatgtt gcacacttac taaaaaactt tggaaatgga aaataatgta ttagtgcaac 300
agttgatgtg cttctttggg caaagatata gttttgttcc acaatttgta cttaaaagcg 360
aaagaacatt gaaaacatag acttactggc tgtagcaatg ctggcctgtt aactgataac 420
tagaacttag gttcacgttt atgtaaagtg tgtaaaacct agtagagctt gcatagtcgg 480
cactcagtaa atgtttggtt ccttttgccc cttggtaagt ttattttacc atcctcccac 540
ctgccattct gactttatta aatcaacatg tggaccagag tgttaatgag atgttattgc 600
agaagagatt gagaaaattg gtatatcatg cagataacat acaaaatctt tttgtaacgt 660
aaaaaatgca gttttattat tgcttgtgcc tcaactgttt aagtgaatat taaagggctt 720
atctcgag 728

<210> 1179
<211> 500
<212> DNA
<213> Homo sapiens

<400> 1179
gaattcggcc aaagaggcct aaaaaagaaa ggaagacaaa aatagaaaga gagcgtaagg 60
gcaatacata gacaatagta ataaatatga tagatattat taacccaggt attttaataa 120
tcattttaac tgtgaatggt cgaaataaac caattaaaag atggagattg tcagagtgca 180
tctaaaaaca aaacccaact gtatattttc cacaagataa ccactttaaa tagaaagact 240
catatagatt aaacgtaaag gaatggagga aaatatacca tgctaacact aataaaaaga 300
aagcggaaga atagatgaat ccactgttag agttgaagac ttcaacatct ctctagaaat 360
tgacagatgc agcagccgga aaattggtaa agacataatt gaacttaaca gcaccatccg 420
tcaactggat ataattgaca tctatgaact gcttcatcca gcaatagcag attactaatt 480
cttctcaagc tcaactcgag 500

<210> 1180
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1180
gaattcgcgg ccgcgtcgac agcacatgca tctcccacag cctctgccgc gggtaccatg 60
aagatctctg cagctgccct caccatcatc ctcactgcag ccgccctctg cacccccgca 120
cctgcctcac catatggctc ggacaccact ccctgctgct ttgcctaccc cctcgag 177

<210> 1181
<211> 704
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (26)

<400> 1181
gaattcggcc aaagaggcct agaacngagc ttgctgtcta cctatgaact cccatcttgt 60
tacccaacaa aagacctaac tagcatttat gacataaagc catttccaaa aatcacagat 120
actaaaaaga cagaagattt atactggaga cagcagtcac taaaaaccca acccacacct 180
tactgtaaac cagaccactg gattcactat gaaaatctta aatctcccct acgtgatcag 240
tataatatgt gtccagaccc tgttagcctt agtaaaccta gtgttttaca aaataaacaa 300
gacacggaag ctttcacttt agaacatttt ttaagtaagc cagaagaaga gttgttcttg 360
aatatggaaa acaatgaaga aacaagacct gttcttggtt ggattcctag agctggagtg 420
accaaacctc agaccaacct gctggagctt aagaactctt tttcaaaaac tggtgcacaa 480
aagcgtttcc ataaatcaat tctagaagac cataaagacc tcagggataa tgagcattcg 540
gggatgaagc accaattcta tggccataat tcctattatt tctataattg agatactcat 600
tcttcccttc aaaacccagc ctcttgcaag aagctaaaaa atataacaga atttccttcg 660
tattgctgga ttctgttttc tagattaaac cacaaggact cgag 704

<210> 1182
<211> 863
<212> DNA
<213> Homo sapiens

<400> 1182
gaattcggcc aaagaggcct acctaagacc cccagattta gcagcagcaa ccagtgggga 60
tctgggctac ctgggcacaa gaactcctct aaaaatacaa agccaaaacc aatcccatgt 120
gcacatttca aacatacgat ttgcatctaa atcaagtgat tcttgaattt catcaagcag 180
ctgaaaggcc tacaaatttc aaatatttta cataacagtc tagtgaccaa agctagcttc 240
tcattataca gtcctattgg tttatcctaa gtactctaac cacatcacct ggtggccctg 300
aaaggctgtt ttggctgaaa aaaatgtgac agaggccagc agatgctttg gaaagcagga 360
ctctagatgt gaatttgtgc tcagagctct gtacaaaact ctcaatatga gaacccacaa 420
aagcagagtt agaatagcta catttttagg tccccaataa caaacatatc attttgcaaa 480
gtgatgggaa agtaatttca aaagaagcaa tggtacaaga tggctcaatt gatctagccc 540
cacacagact tcagacagca atgcctgatt cagcaaacca ggtaggggtg tgacattctt 600
taaggctgag gagtggcagg agcagcttgc atcagtcatc tggaaacatc actgggtctt 660
caaccatccc tgaacactca gctctgtccc cacaggagga caccagggac ttgtgctgaa 720
atcctcatca agccctttttg tgcgtgtcct tcctcatata tctgagccct gcagaaacac 780
attccctgcc agctgccacc tgccatgtgt ctgtaccact cttctctgtg tttgcatctg 840
tgggtcttga caccсttctc gag 863

<210> 1183
<211> 652
<212> DNA
<213> Homo sapiens

<400> 1183
gaattcggcc aaagaggcct actcctggcg atggtggcgc cgttctttgc cctcttcccg 60
gtctgccttg tcatacccgc ggtcccgatc ccgttccctg tctcgctctc tctctctgtc 120
taccttgtca tagccacgct ctcgatccct gtcagacttg tcgtggcccc ggtctgactt 180
gtcgtggccc ctgtctagtt tctcatggct gcggtccgac ttgtcatggc ccctgtccga 240
cttgtcatgg ctccggtcca acttttcttc agcatctgca ttactgcttc tgagcttctt 300
ggccgatttg gtaaccacgg agttggggtc atgtggggag agccaggata caaggtctgt 360
gtctgcattc cagtagtaag ggagcccgca ggaagggtcg aacaccttgt accagcttgg 420
tggtaggccc tccaacctgg tggcctcgta gtccacagga tcatcgtcat agtcctcggc 480
aatgatctct tcctctggtt caggctccag atgtttgagg atgcctctct tggccaagcg 540
ggtctgcagc gcaacgggca gcggcatagc tgatagcaga cagacctggg cccacacgac 600
tctcttccca aaacaccgaa tgagaccttc tctcaacgag gccttcactc cg 652

<210> 1184
<211> 126
<212> DNA
<213> Homo sapiens

<400> 1184

gaattcggcc aaagaggcct agtgaagtgg accaaagtct atggaagtgt ttgctgcact 60
ttggactaaa ataaagaggg cctgtaaggt gttttagaaa cttgtccttc atccacagat 120
ctcgag 126

<210> 1185
<211> 468
<212> DNA
<213> Homo sapiens

<400> 1185
gaattcggcc aaagaggcct aggcagagcc aggttcatac atggaaaagg cctggcgatc 60
cctgcggtgt gtgctcccgc ctggcgccat gggtgtgtgt tccgcccgtt cactggggag 120
tggaggtgtg ggcaccggcc ctggaggctg ccggagctgc aggttctccg cctgcagctt 180
gtggatctct cgctgcagcc tccggagctc gtcgctcagg ctactgttga ccttcatgag 240
ctgctgcacc tttgcctccg atgtagccag ggccttcttc agctccaggt actcctgcag 300
cgtcacagcc ccgtcagaca agtccgagga gtccatgctc cgggcccggt tgctccgagt 360
ggcgccggtg ctgcgcaggg gctcctggtc tgtgtcctcg tcagaggcca cgctgtcgta 420
gtcgtgttgg tcgtcgaggt cactctggct ccgcagagac agctcgag 468

<210> 1186
<211> 328
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (116)

<220>
<221> unsure
<222> (125)

<220>
<221> unsure
<222> (147)

<400> 1186
gaattcggcc aaagaggcct acacaggcag acatactcac agagacacac acagacacac 60
acaaacagaa actcacacac acaatcacac agagacacac atgcagacac acatanacat 120
acacngacac atagagagac acacgcngac acacacacac agagacatgc acacacagag 180
atacatgcag atacacacag agacacaggc agacacacac acagacccgg acacagacac 240
acacatgcag acatactcac agagacacac acagacacat acaaacagaa actcacacac 300
acaatcacac agagacacac gtctcgag 328

<210> 1187
<211> 488
<212> DNA
<213> Homo sapiens

<400> 1187
gaattcggcc aaagaggcct agggaaaaag tacaaaactt ttttggtatt tgtacacata 60
gttttggaaa gcttaggaat gtgaagtcaa caatatacct ttaaaatatc aaattataag 120
gcaataacaa tttttttcaa accttaaaat gttccaagaa aaatgactaa gaatgatttt 180
tttccatcca gtatatgctc taaaaataag gacaaactat aatagaagta acgatttttg 240
gtacacatgt ttaaaaaaat gtccatgtca ataaacaatt tcaattaatc aataaactta 300
aaacaaccat taaatgtaat ttgcattttt gtatcagatc catacaatct caaatatcaa 360
gattttctta agctcaatgc taaatgaccg gatatctatc attgtggaga aacagagttt 420
gatcttaggc agacgaaagg aaaagaaagg cacacaccta gaagaatcac atgagtctca 480
ttctcgag 488

<210> 1188
<211> 473
<212> DNA
<213> Homo sapiens

<400> 1188
gaattcggcc aaagaggcct atgctgcctg agtgccggag acggtcctgc tgctgccgca 60
gtcctgccag ctgtccgacg atgtcgtccc acctagtcga gccgccgccg cccctgcaca 120
acaacaacaa caactgcgag gaaaatgagc agtctctgcc cccgccggcc ggcctcaaca 180
gttcctgggt ggagctaccc atgaacagca gcaatggcaa tgataatggc aatgggaaaa 240
atggggggct ggaacacgta ccatcctcat cctccatcca caatggagac atggagaaga 300
ttcttttgga tgcacaacat gaatcaggac agagtagttc cagaggcagt tctcactgtg 360
acagcccttc gccacaagaa gatgggcaga tcatgtttga tgtggaaatg cacaccagca 420
gggaccatag ctctcagtca gaagaagaag ttgtagaaga agagctactc gag 473

<210> 1189
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (145)

<220>
<221> unsure
<222> (196)

<400> 1189
gaattcggcc gaagaggcct agggtggggt tgtagtctta ggggtggctg gtttggaaga 60
aagaccacca actgcttccg tttgctcagt gcctggctca gcataaactg atggaaactg 120
ggtggttttg tcactatatt ctgtnctggt tacattgtcc tcgtctgtgt cggtagattt 180
ttccatctcg gtaggnactt tagattctac agatgttttt cctggttctt ttaaacattc 240
taatttcttc tgtggtgtcg ttccttctga ccatttctct actttaatct gatgaaattg 300
tttaaccaga tcttttatat ccatagtagt attccctcta tacatagtaa gttcttgaaa 360
ataagctgct gcaaactggt tgatgtttga tgggttggtt ttgagaacag ctctgctaat 420
tccctcgag 429

<210> 1190
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1190
gaattcgcgg ccgcgtcgac atgggctgtg ccttcatcaa cctctgcatc ttggcttcac 60
agcatgcttg ggctcagctc acattctggg aggccagcca gctttacctg ctgttcctga 120
gccttacgct ggccactgtc aacgcccgct ggctggaacc ccgcaccaca gctgccatgt 180
gggccctgca aaccgtggag aaggagcgag gcctgggtgg ggaggtacca ggcacgctcg 240
ag 242

<210> 1191
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1191
gaattcgcgg ccgcgtcgac atgaaagcgg ggaaatgtgt gtccccccact gtgctgataa 60
atgtgtccat ggtcgctgta ttgctccaaa cacctgtcag tgtgagcctg gctggggagg 120
gaccaactgc tccagtgcct gcgatggtga tcactggggt ccccactgca ccagccggtg 180
ccagtgcaaa aatggggctc tgtgcaaccc catcaccgga gcttctcgag 230

<210> 1192
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1192
gaattcgcgg ccgcgtcgac tgctgcccac agacctgcgc tgccactgcc atcgccatcc 60
atcgcattcc accgacagac tgctgcttct agtgatctgt actcacctcg gaggtatctg 120
ggctggacac agcccctgga caatgatcca gacagctggc tgcccctcaa gggacctgtt 180
accttcagcg agacccattt cctccccatc cctcgag 217

<210> 1193
<211> 244
<212> DNA
<213> Homo sapiens

<400> 1193
gaattcgcgg ccgcgtcgac cccactcccc ttcccccatc tctcactgtt ttgtgtacac 60
actgtgcaca cactacctgt gctccctgcc ccacatgctt gcacactgct tgctcctcct 120
gcagggactc tcctctccct tccacatgcc cgcagcttct cttccaacct cagtctcaac 180
agctcttcct caccagctga cagcccgggg ccatgcccag cattcctctc ccctagcgct 240
cgag 244

<210> 1194
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1194
gaattcgcgg ccgcgtcgac gaaagtcatt tataacccca aatgttcatc atactcatct 60
ctatgtatat gctcatctct atgtatatgc cctatgtcac tcaggaaaac attagtttac 120
taaccatctc tcatttaaaa acaaaaccct ttgggccagg cgcggtggcc tacgcctgcg 180
gtcccagcac cttgggaggc ccaggcgggc agatcatccg aggtcaggag ctcgag 236

<210> 1195
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1195
gaattcgcgg ccgcgtcgac ctgcctgttc tgtatcccac tcaaggccct caggcatccc 60
acgttccaca ttcctgaaat ggccctgtct cccctcaccc acagcctgct cctcagcatg 120
gcagtcactg tctccaccca gcttttctgt caggttccct ggggtcctgc acaagtccgt 180
ctctgccaca tcccacgtca cccgcgtccc acgtcacccc cgtccctcga g 231

<210> 1196
<211> 149
<212> DNA
<213> Homo sapiens

<400> 1196
gaattcgcgg ccgcgtcgac attggggttg caggtggcaa gaaggtggat ttgtgtcaag 60
agctgaacat gctgctgcat ctgctgctgg agtctcttcc tttgtgctgg gtccagaatc 120
agggtctgat gaactccctt acactcgag 149

<210> 1197
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1197
gaattcgcgg ccgcgtcgac ctttaaataa aattaggaga aaatgtcgaa gcagcagctc 60
cttccactct tggcctgggt ggccctagtt ccactgtaca ctttggccac tgcgtcactg 120
ccggttccag ggcagccggg agccccactt gggaccctgg ccctcccttc tgtgaggctg 180
gtgcttcggg acgtcgcctt gctcgag 207

<210> 1198
<211> 255
<212> DNA
<213> Homo sapiens

<400> 1198
gaattcgcgg ccgcgtcgac gcagcagttt ttgttcattc atttggccca aaatcacgtg 60
taggatttgg ggatgtggat atttaagaca atttcttttt tcttttggtt taataggggc 120
gggtataggg accaactggg accgagtgcc cagggggccg agcacggtca tgctggccgg 180
cctgcatgca tgcgtgtgcc gggctgggct gggcggccgg cggtcgtggg gcagggttgg 240
gggtctcacc tcgag 255

<210> 1199
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1199
gaattcgcgg ccgcgtcgac caggattgtc attttcctct ttgcctgtgg gtttaacttt 60
tgtatttttt taatcacaag tttgatacaa aatgttttta tcgtactctt tggagatgcc 120
cattctactt ttgaatttag cttttactaa ttcgcatctg gaagctcagc aagtgcacaa 180
gccttacttt ggttaccgtg gaaaccactg ccaccctggg ctcgag 226

<210> 1200
<211> 301
<212> DNA
<213> Homo sapiens

<400> 1200
gaattcgcgg ccgcgtcgac ccgccctgcc cagcatgtcc tcaactttct gggcgttcat 60
gatcctggcc agcctgctca tcgcctactg cagtcagctg gccgccggca cctgtgagat 120
tgtgaccttg gaccgggaca gcagccagcc tcggaggacg atcgccccggc agaccgcccg 180
ctgtgcgtgt agaaaggggc agatcgccgg caccacgaga gcccggcccg cctgtgtgga 240
cgcaagaatc atcaagacca agcagtggtg tgacatgctt ccgtgtctgg agggtctcga 300
g 301

<210> 1201
<211> 379
<212> DNA
<213> Homo sapiens

<400> 1201
gaattcgcgg ccgcgtcgac cgcgccggaa gcacctagag agcggcgcgt gcgcagcggg 60
agtcgaagcg gagatcccgg gtcgcgcgag agccgcaagc ggagttggtg ggcgctatgc 120
tatcacccga ggcagagcga gtgctgcggt accttgtaga agtggaggag ctcgccgagg 180
aggtgctggc ggacaagcgg caggtgagag gcccctccgc ggcgatgggg cctggcggcc 240
ggcgccgtgg gaaagcgcgc ggggtcgcag tgagttgacc tggacaggcg gttaacggct 300
ccgaggcgac agacctgggc cgataaatat tcggccgcta ctaagtgagc gcctgcgcta 360
tgctggacat tacctcgag 379

<210> 1202
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1202
gaattcgcgg ccgcgtcgac gtggtggttc cgcgatggta ggcggcggcg gggtcggcgg 60
cggcctcctg gagaatgcca accccctcat ctaccagcgc tctggggagc ggcctgtgac 120
ggcaggcgag gaggacgagc aggttcccga cagcatcgac gcacgcgaga tcttcgatct 180
gattcgctcc atcaatgacc cggagcatcc acaaaacgct cgag 224

<210> 1203
<211> 418
<212> DNA
<213> Homo sapiens

<400> 1203
gaattcgcgg ccgcgtcgac gtgatatttg tgggatggtg ggtatgtttt gtttcctgat 60
tttcttgcag tctctgctgg gctttgggac taaggctgta cttgcctccc aaagagttgg 120
gaagtgctgc tcatttctcc ttgccaggaa caccatggct ggcactcgac gggtggaggg 180
gcaggttggg ggtaggcccg gggtcctgg ctgcagcctc atgccgccac cccgcagga 240
gtgcgctggg gagccgctgt tcatgctgta ctgcgccatc aagcagcaga tggagaaggg 300
ccccattgac gccatcacgg gtgaggcacg ctactccctg agtgaggaca agctcatccg 360
gcagcagatt gactacaaga cactgaccct gaactgtgtg aacccagaga aactcgag 418

<210> 1204
<211> 404
<212> DNA
<213> Homo sapiens

<400> 1204
gaattcgcgg ccgcgtcgac ctcatgctga ctttactctc cttcttcttg ggggtgtttg 60
tttctttctc ggtttgctgg ttggaagacg aagatgagga ggagctggtg ctggccctcg 120
aatcgtcatc cgacatagcg aaccccccac cccaccccgc aaacagcccc tctctttgtg 180
tctggctcct ccgtgccgcc gcggcggctg ctgctgcggc tgcggctggg cctggccact 240
cgtgtctctc tctcgctggg agagaagcgg aagtgcagca acagcaacta ttaaacaggc 300
aatggcttcc cccagccaca cacgctcgca cacacaccac tcctccgccg ccgcctcctc 360
ctcctcctcc tcctcctcct cgccctcacc cctccccccct cgag 404

<210> 1205
<211> 351
<212> DNA
<213> Homo sapiens

<400> 1205
gaattcgcgg ccgcgtcgac cgtccttgag gacgccgtgc cgggtcagtg ttagcctcca 60
gccctggttg tggaaggcga cagaagtcat ggcgatgtct gagcagatga gagccaacgt 120
gggcaagttg ctcaagggta tcgacaggtc tgagcccggt tggaggaagc gctctggcca 180
agcggggcgg aggagagggt tttccggaga cagcaagggg tgttcagggt cctgggcttg 240
ccgcggggtg gggtttctct atcctcctgg aggaggagat gcttaaagaa acggcactga 300
gctgggggta gtggctcacg cctgtgatcc tagcactttg ttaggctcga g 351

<210> 1206
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1206
gaattcgcgg ccgcgtcgac atgggcctct ggttttactt ctgcttcctc tttttttca 60
tcatcatcgt catcccagtt atccttgacg tcctcgtcct cgtcctcgcc ttcccagcgg 120
tccccgccgg cagtgccgcc gccccccacc ttccgcactg ggtcttccac ggagaaagcg 180
tcggcgtccc aggagtccga gtcccccgcc gccgccgccg ccgccgccat ctcgag 236

<210> 1207
<211> 278

<212> DNA
<213> Homo sapiens

<400> 1207
gaattcgcgg ccgcgtcgac atggttttcc tttttctggg tgtttttatt gtcaccctca 60
ccatcgtggc tttgggcatc tgcctgcctg tcagtctctg gttccctgtt tctgggtgtt 120
ttgattgcca ccctcaccat cgtggctctg ggcatctgcg tgcctgtcag tcttgctcct 180
ccatctgcca tggctttgcc aggccttctg tgctctccac ccccctctct gcctcctcag 240
ggaaagagtc ggcaggtgcc ctttcctccc acctcgag 278

<210> 1208
<211> 393
<212> DNA
<213> Homo sapiens

<400> 1208
gaattcgcgg ccgcgtcgac aaaaggcctt atttctcttc ttgattggca taatgttgtc 60
atttctttac acatcacagt atttcttact tccttaagtg gcgtagggct tattcctcag 120
cagtcaacta tctcatagat tagccaggca tggtggtgca cacctgtgat cccagctact 180
tgggaggctg aggcaggagg atcacttgag ccccggaggt tgatgccgta attgtgccac 240
tgcactccaa ctgagcgacg tttctctgaa aaaaataaaa ataaaataaa actatttaaa 300
aagtaaatat ctcatagagt agctgtgtga taaggatgtt tagctatgaa tggtctttgg 360
aaaaggcaag ggcttaaaag aaagaatctc gag 393

<210> 1209
<211> 285
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (212)

<220>
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<222> (215)

<220>
<221> unsure
<222> (227)

<220>
<221> unsure
<222> (249)..(250)

<400> 1209
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gtgcataaat caatccaaat ttagaccctg gcaaccagtt ccccattgct catatacggg 120
actctgtcaa acggtaaata ggcaatcatc tctcttgaaa agtatacatc ctctctcgca 180
ctggtggaaa gcaaaattga ctttttgttt gntgnataaa aacactnagc acttcagaaa 240
ttaaagaann gcctactcac cccacaccct tcccaaaatc tcgag 285

<210> 1210
<211> 405
<212> DNA
<213> Homo sapiens

<400> 1210
gaattcgcgg ccgcgtcgac tgcagctctg aagaagctgc tctattcgtt tttgttttcc 60
cgccactggg gcaagccctc cttccacact atgaagacga aaattgccag caccacatga 120

agcccgacca ctgcaacaat ggtcgcataa aagccgctgt cttcagggga catcaacatc 180
agactttgga aaagaagtaa tttgcaggaa aaatataacc ccacaggaac tttaaccata 240
agccctgcaa aaaggagaaa aatcttgaaa gtcatagcca caacgccctc agacttgggc 300
tcggctgctg cggcagtggc agcccgctgc gcggtaggcg gaggcctgtg agagcgcggc 360
atcgtcagtc agtccgtccg tctgtccgtc cgtcgatgcc tcgag 405

<210> 1211
<211> 284
<212> DNA
<213> Homo sapiens

<400> 1211
gaattcgcgg ccgcgtcgac cacaaccccc actccagggc cagtttcccg cctccagctt 60
cctgtcccat cagaaccgta cactttgagc atgctcagtg tattatatgt tgattacatt 120
tatatattat gaccctattc tatattctat atcagattta ttttattata gccaggtgcc 180
atggctcacg ctcagcctcc caaagtgctg ggactaccag catgagccac tgcacccagc 240
ccccagatct ttggcctcat gaggctgaca gtccagttct cgag 284

<210> 1212
<211> 335
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)

<400> 1212
gaattcgcgg ccgcgtcgac nacatgttgt cacacccagt catccgccgg agctctctct 60
taactgagaa actcctcaga ctcctttctc tcatctcaat tgctctccca gaaaacaagg 120
tgtcagaagc acaggctaat tctggcagcg gtgcttcctc caccaccact gccacctcaa 180
ccacatctac caccaccacc actgccgcct ccaccacgcc cacaccccct actgcaccca 240
cccctgtcac ttctgctcca gccctggttg ctgccacggc tatttccacc attgtcgtag 300
ctgcttcgac cacagtgact accccacaac tcgag 335

<210> 1213
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1213
gaattcgcgg ccgcgtcgac ggataaagca gatgtttatt ggggcattcc ttatcccagc 60
tatggtgtgt ggcactgcct tcttcatcaa tttcatagcc atttattacc atgcttcaag 120
agccattcct tttggaacaa tggtggccgt ttgttgcatc tgtttttttg ttattcttcc 180
tctaaatctt gttggtacaa tacttggccg aaatctatca ggtctcgag 229

<210> 1214
<211> 262
<212> DNA
<213> Homo sapiens

<400> 1214
gaattcgcgg ccgcgtcgac ctggccttcg actcgctatg tccactaaca atatgtcgga 60
cccacggagg ccgaataaag tgctgaggta caagccccg ccgagcgaat gtaacccggc 120
cttggacgac ccgacgccgg actacatgaa cctgctgggc atgatcttca gcatgtgcgg 180
cctcatgctt aagctgaagt ggtgtgcttg ggtcgctgtc tactgctcct tcatcagctt 240
tgccaactct aaggagctcg ag 262

<210> 1215
<211> 505

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (14)

<220>
<221> unsure
<222> (17)

<220>
<221> unsure
<222> (40)

<220>
<221> unsure
<222> (99)

<220>
<221> unsure
<222> (103)

<220>
<221> unsure
<222> (112)

<220>
<221> unsure
<222> (128)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (209)

<220>
<221> unsure
<222> (215)

<220>
<221> unsure
<222> (230)

<220>
<221> unsure
<222> (408)

<220>
<221> unsure
<222> (489)

<400> 1215
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gcgaggatct ctatcctggc ctggggatta tgaacatang tanccggggc anggccctgg 120
gtgggacngt ggcctccact ggcctcacca aagtgcctgg gccccaatcg ttctccatgc 180
ccaggggccc caggtgggcc anacctctng cctgntcctc agccctactn atggggacat 240

tcagggacct ccatgaagtg ggcgggggag catccaaccc ctgctagccg gcagctgtgg 300
ccctgatcaa atcaggggct ggggagggaa agtgggtcca ttgaggtggc cctgctccat 360
cagcccccta cgggacttgt gttcattaca gtgagggggt gctcccantg tctcccggcc 420
tccctaatgc tccctttgct gcagggagaa gggttccaag atcacaaaat gtcaacaatg 480
ctggcctcnt gcaccaaagc tcgag 505

<210> 1216
<211> 263
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (211)

<220>
<221> unsure
<222> (222)

<400> 1216
gaattcgcgg ccgcgtcgac cctcaccgcg ctcagcctct cgggttgatc caaggtcacc 60
gacgacggcg tggagctcgt ggccgagaac ctgcgcaagg tgcgcagcct tgacctcttg 120
tggtgcccac gcatcaccga catggcgctg gagtacgtgg cctgcgacct gcaccgccta 180
gaggagctcg tgctcgacag gtgtgtacgc ntcacggaca tnggcctcag ctatctgtcc 240
accatgtcgt ccctccactc gag 263

<210> 1217
<211> 362
<212> DNA
<213> Homo sapiens

<400> 1217
gaattcgcgg ccgcgtcgac taaaggtctg agaagaggat tatggcctat ttgtaaagct 60
gagggaggct cagagtagct taatgctgcc tggctgggct ggaggcaggg actgagggcc 120
tgtaattgtt ctggggcaat ggggagccat agagggtgtg tgagcagagg caaagcccaa 180
tcagactagg agcaggggaa agatgctcac ctgggctcct ctgctggccg ccactccacg 240
gaatggtaca aactcttcac ggccaccagc cactcccgca gcacagttga cgtgttatcc 300
atgttgtggt ccgtagccac ccatagcgcc gtgcgctccc gcgggtgccg cagccgctcg 360
ag 362

<210> 1218
<211> 417
<212> DNA
<213> Homo sapiens

<400> 1218
gaattcgcgg ccgcgtcgac cgccaagatg aaccgccaga gaaccaactc catcgggcac 60
aacccaccac actgggggc tgagcgcccc ttctacaacc acctgggtgg caaccaggtg 120
tccaaggaga tgaagcggat gggctttgaa gaccccaagg acaagaacgc ccaggagagt 180
gcgaaccctg aggatgaagt ggatgagttt ctgggccgtg ccattgacgc caggagcatt 240
gataggcttc ggtctgagca cgtccgcaag ttcctcctga ccttcaggga gcctgactta 300
gagaagaagt actccaagca ggtagacgac cgatttggtg cctatgtggc gtgtgcctcg 360
ctcgtcttcc tcttcatctg ctttgtccag atcaccatcg tgccccactc gctcgag 417

<210> 1219
<211> 290
<212> DNA
<213> Homo sapiens

<400> 1219

gaattcgcgg ccgcgtcgac cttcttttaa aaatatttta agagtattag taaactttgc 60
cctcataatt tagaatgtca tttctgaaac gaatccacca cttctggttc tgtgtgaaga 120
atcactcaaa gcaggtttta aatgcagatt ttctgggcca gtcatggtgg ctcatgcctg 180
tggtcccggt actttggggc gggcggatcg cttggggtcg ggagttcgag gccggcctgg 240
ccaacgtggc aaaaccctgg ccaacgtggc gggatcccgt ctatctcgag 290

<210> 1220
<211> 281
<212> DNA
<213> Homo sapiens

<400> 1220
gaattcgcgg ccgcgtcgac gagcatagat ggaattccaa aatatgtaca ttcagctgtt 60
tggtttttcg tttttcattg ttattattgt gagaatgctg ttattggggt tgtgtgtgag 120
tgcccgtcag ccagtgatgc ctcgggccac gctgtggggc cacctcagtc ctgcctgggt 180
cctggtgcct tggaccccac gtgcttgtgg ccaggctgcc cttgcccgag cccggggccc 240
ccatgatcac cgctcgcagc agccgcgcgg acgcccccat g 281

<210> 1221
<211> 338
<212> DNA
<213> Homo sapiens

<400> 1221
gaattcgcgg ccgcgtcgac ctttttgccg tttcttggat gctgtttaag tgatatttac 60
cttagtagtt tcccaggggt taaggccgct tcagtattaa ggctagatca gagagtttcg 120
ttctgttgct gttgctcaat caatttatgt cgttacatcg tttgtggatc atggctatgt 180
gcctggtctt tggccaggag aaggggcagg aaagtgatag tacgaagatg actaacacag 240
gaccctgtcc tttaggagtt gatgtacgtg atgaattagt caagtcatgc atggtggtga 300
gggccataca aggggaaagt gttactggaa aactcgag 338

<210> 1222
<211> 409
<212> DNA
<213> Homo sapiens

<400> 1222
gaattcgcgg ccgcgtcgac attttatgat aaaaatgaaa ctgagttgtt tggtgaatgt 60
cactggagct atcagcattg ctggaattca ttggtaccat ggcacagaag gctacgtgga 120
gcctgattgc ccttgccttg ctgtttgctt tgataatgga agatgccaaa taatgagaca 180
tgagaatgac caaaatcccg ttttgattga cactggcatg tacgtagtag gcatccagtg 240
gaaccacatg ggcagcgtgt tagctgtggc aggcttccag aaggcagcca tgcaggacaa 300
agatgtgaac attgtgcagt tttacactcc gtttggtgag catctgggta ctttgaaagt 360
tcctggaaag gaaatatctg cactatcttg ggaaggagat ggactcgag 409

<210> 1223
<211> 291
<212> DNA
<213> Homo sapiens

<400> 1223
gaattcgcgg ccgcgtcgac ggtcactact attgagtttc ttccttaaca ctgattaaat 60
gatcttaact ccctcagcta aaactggcat tactgactcc cagctatatt tctccagact 120
tgcatttttt tttttttttt tttgagacag ggtctcactg tcgcccaggc tggagtgcag 180
tggcgtgatc tcagttcact gctgctttcc ctcctgggct caagcagttc tcccacctca 240
gcctctcgac taacagggac tataatcttg cagcactatg ccgacctcga g 291

<210> 1224
<211> 324
<212> DNA

<213> Homo sapiens

<220>
<221> unsure
<222> (47)

<400> 1224
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacntgc ctcgaggacc 60
cctagctccg acatgtcgcc ctctggtcgc ctgtgtcttc tcaccatcgt tggcctgatt 120
ctccccacca gaggacagac gttgaaagat accacgtcca gttcttcagc agacgcaact 180
atcatggaca ttcaggtccc gacacgagcc ccagatgcag tctacacaga actccagccc 240
acctctccaa ccccaacctg gcctgctgat gaaacaccac aaccccagac ccagacccag 300
caactggaag ggtttggct cgag 324

<210> 1225
<211> 326
<212> DNA
<213> Homo sapiens

<400> 1225
gaattcgcgg ccgcgtcgac atcaccctta attgttctac ctataaaatc aattcagagt 60
aattctaaac tttccccact ctcaccatgg tcttctgtcc ttccatcttg cattgcatgt 120
ccttttttgc ccactgcagc cattcttcga cctctagtcc tttgactcct gtactttctc 180
ccaagtgctt tttgtttttg tttttgtttt tgtttttgac ggagtcttgc tctgtcgccc 240
aggctggagt gcagtggtgc gatctaggct cactgcaagc tccacctccc ggattcacgc 300
cattctcctg cctcagcgac ctcgag 326

<210> 1226
<211> 518
<212> DNA
<213> Homo sapiens

<400> 1226
gaattcgcgg ccgcgtcgac cttattacaa aatcaaacct gcatgcaatg atcaaagctg 60
aagaaagcag taagcaagaa gagtgcacca caacatcaac agccccagtc cctacaacag 120
aaattccgac cacaatgagc accatggctg ctgccgaagc agcagctgct gttgttgcag 180
cagcagcagc ggcagcagca gcagcagctg cagccaatgc taatgcttcc acttctgctt 240
ctaatactgt cagtggaact gttccagttg ttcctgagcc tgaagttact tccattgttg 300
ctactgttgt agataatgag aatacagtaa ctatttcaac tgaggaacaa gcacaactta 360
ctagtacccc tgctattcag gatcaaagtg tggaagtatc cagtaatact ggagaagaaa 420
catctaagca agaaactgta gctgatttta ctcccaaaaa agaagaggag gagagccaac 480
cagcaaagaa aacatacact tggaatacac agctcgag 518

<210> 1227
<211> 733
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (3)

<220>
<221> unsure
<222> (12)

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (28)

<220>
<221> unsure
<222> (46)

<220>
<221> unsure
<222> (82)

<400> 1227
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agactataac ctaactggaa anttttattc atcattttaa ctggaagatt gtggtttaag 120
actgtaactg tggggtaggg ggggtggctt atgcctgtaa tcctagcact ttgggaggct 180
gaagtgggga ggatcactgg agcccaggag ttctaaacca gcctgggcaa catagggaga 240
ccctgtctct acaaaacaaa acaaagacca taactatgga aaaacctaat gctacagtaa 300
ctgatgtcat tcatgtaact catgttgtgt aatgttttcc tagaaatttc aaggtaaaga 360
tgtcggggtt aagtgtttga tatatcccag tcactgtgac agttttgact cttcacgcct 420
ccaaaaattg ttttcagccc agaaacattt gagaggcttt taaagtggaa agaactgcct 480
ttatacaatt tacaaatcat ttctcttccc tccgaagaca cagatgacag gaaaatcact 540
tactccatta aagttccttt tcagaattaa tctgggctgg agccacaaag aatttgttt 600
tggtcctctt aaagccaaag gtcatagtaa tatataaaca gaatggaatg ttttgcatta 660
atgacatgtt tgagaaaagt aatttaagct tttgcttttt agatgtcata cttgtaacac 720
cacagatctc gag 733

<210> 1228
<211> 488
<212> DNA
<213> Homo sapiens

<400> 1228
gaattcgcgg ccgcgtcgac gaagaggaag aaccaatgga tacttccagt gtaactcaca 60
cagaacacta caagacactg atagaggcag gcctcccaca gaaggtggca gaaagacttg 120
atgaaatatt tcagacagga ttggtagctt atgtcgatct tgatgaaaga gcaattgatg 180
ctctcaggga atttaatgaa gaaggagctc tgtctgtact acagcagttc aaggaaagtg 240
acttatcaca tgttcagaac aaaagtgcat ttttatgtgg agttatgaag acctacaggc 300
agagagagaa acaggggagc aaggtgcaag agtccacaaa gggacctgat gaagcgaaga 360
tcaaggcctt gcttgagaga actggttata ctctggatgt aaccacagga cagaggaagt 420
atggtggtcc tccaccagac agtgtgtact ctggcgtgca acctggaatt ggaacggagg 480
aactcgag 488

<210> 1229
<211> 756
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (28)

<220>
<221> unsure
<222> (53)

<220>
<221> unsure
<222> (61)

<220>
<221> unsure
<222> (80)

<220>
<221> unsure
<222> (85)..(86)

<220>
<221> unsure
<222> (185)

<220>
<221> unsure
<222> (375)

<220>
<221> unsure
<222> (398)..(400)

<220>
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<220>
<221> unsure
<222> (669)

<220>
<221> unsure
<222> (719)

<220>
<221> unsure
<222> (727)

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ntgggattcc tggtcatcan gcaannatca agcccgctcc tccacaaacc gagcaagtag 120
agagcaagag gaagtcaggg ggaaatgagg ttagcattga ggaacgtctg ggagcaatgg 180
atatngacac acacaaaaag gaaaggaaga cctccagacg aatagctttc cagttcttct 240
tacccagggc ttagaaagta acgattttga aatgctaaat aaagtacttc aaactaggaa 300
tgtaaacctt ataaagaaga ctgtattaag gatgcccctg catactatta ttccgttgtt 360
acaagagctt acaangaggt tacaaggaca tcctaatnnn gctgtgctaa tggttcagtg 420
gctaaaatgt gtgttaacag ttcatgcatc atacctgtcc acgttgcctg acctggnccc 480
cagctgggga cactctacca gttaatggaa agcagagtca aaacttttca gaaactttca 540
caccttcatg gaaagcttat tcttctaatt acacaagtaa cagcatcaga gaagacaaag 600
ggagcaactt cccctggaca gaaggcaaag ttggtgtatg aagaagagtc ttctgaagag 660
gagtctgang atgaaatagc agataaggat tctgaagata attgggatga agatgaggng 720
gagagtnaaa gtgaaaaaga tgaggacact ctcgag 756

<210> 1230
<211> 396
<212> DNA
<213> Homo sapiens

<400> 1230
gaattcgcgg ccgcgtcgac gaaagaaact gaggctgcac aaatggagca tcagaaggag 60
agaaacagct ttcaagagag gatccaggca cttgaagagg acctgagaga gaaggaaaga 120
gaaattgcta cagagaagaa aaatagtcta aagagggata aagccattca gggtttaacc 180

atggcattaa aatcaaagga aaaaaaggtt gaagaactta actctgaaat tgaaaagctc 240
agtgctgcct ttgctaaagc cagagaggcc ctacagaaag cacagaccca ggaatttcag 300
gggtctgaag actatgagac tgctctatca ggaaaggaag ccctttcggc tgcgctgcgc 360
tcacaaaacc tcaccaagag tacagaaaac ctcgag 396

<210> 1231
<211> 362
<212> DNA
<213> Homo sapiens

<400> 1231
gaattcgcgg ccgcgtcgac ggaaagatga atgtcgagga agatgtccag gaagagcaaa 60
gcaaggaagc cagtgaccct gagagcaacg aggaagaagg tgacagttca ggcggggagg 120
acacagagga gagcgacagc ccagatagcc acttggacct ggaatccaac gtggagagtg 180
aggaagaaaa cgagaagcca gcaaaagagc agaggcagac tcctgggaaa gggttgataa 240
gcggcaagga aagagctgga aaagctacca gagacgagct gccctacacg ttcgcagccc 300
ctgaatccta tgaggaactg agatctctgt tgttaggaag atcgatggaa gacgagctcg 360
ag 362

<210> 1232
<211> 170
<212> DNA
<213> Homo sapiens

<400> 1232
gaattcgcgg ccgcgtcgac aacactgata acactcagaa aaccacagtg tgttttcata 60
tttggaactt tgtaatagcg ggagtagcag tagtccaaac ctagtatagg gaaaggataa 120
aaataagtca ccttcaccaa gagatgccaa tgattaccaa acaactcgag 170

<210> 1233
<211> 317
<212> DNA
<213> Homo sapiens

<400> 1233
gaattcgcgg ccgcgtcgac gacatctcca tggagatccc ccaagaattt cagaagactg 60
tatccaccat gtactacctc tggatgtgca gcacgctggc tcttctcctg aacttcctcg 120
cctgcctggc cagcttctgt gtggaaacca acaatggcgc aggctttggg ctttctatcc 180
tctgggtcct ccttttcact ccctgctcct ttgtctgctg gtaccgcccc atgtataagg 240
ctttccggag tgacagttca ttcaatttct tcgttttctt cttcattttc ttcgtccagg 300
atgtgctcgg cctcgag 317

<210> 1234
<211> 301
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (75)

<220>
<221> unsure
<222> (98)

<220>
<221> unsure
<222> (106)

<220>

<221> unsure
<222> (141)

<220>
<221> unsure
<222> (244)

<400> 1234
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acggtcaaca atggnactgt gttaccaaag aaacctantg gctctntacc atccccctcc 120
ggggtcagga aagaaactgc ngtgccagca accaaaagta acatcaagag gaccagctct 180
tctgaacgag tgtctcctgg gggtcgaagg gaaagcaatg gggattccag aggaaaccgg 240
aatnggcaca ggctccacca gcagctcttc cagtggcaaa aagaacagtg aaaagctcga 300
g 301

<210> 1235
<211> 346
<212> DNA
<213> Homo sapiens

<400> 1235
gaattcgcgg ccgcgtcgac gtggaggttg gtctttggaa gtgatgaaga tgaatcgctc 60
ttgggcaggc acctacctgc ttccagagat cttttgccta ggttttcaaa agcctcactt 120
aaactttttg cttttgcttt gctggaaggt aaactcagcc tgcgggtttc taagccctga 180
aggccaccag gactcgcagg accccctctg tacatgttca tggcccagga gtccgggagg 240
cacatccggc gaggctggtt cctgggactc aggcaatatt cccgatgaag ctgatcaaat 300
cggatttcaa tctccctctg acggttctct ccatggcccg ctcgag 346

<210> 1236
<211> 353
<212> DNA
<213> Homo sapiens

<400> 1236
gcctcaagaa agccctggaa cgaagtgata agtatataga ggaactagaa tctcaagttg 60
cacagctaaa aaattcaagt gaagagaaag aagctatgaa ttccatttgc cagacagcac 120
tttctgcaga tggcaaaggg agcaaaggca gtgaggagga tgtggtgtca aagaatcaag 180
gcgatagtgc cagaaagcag cctggctcat ccacctccag ttcttctcac ctagcgaagc 240
cttccagcag cagactgtgt gacaccagtt ctgcaaggca ggaaagtacc agcaaagcag 300
accttaactg ttctaagaac aaagacctat atcaagaaca ggtagaactc gag 353

<210> 1237
<211> 856
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (62)

<220>
<221> unsure
<222> (123)

<220>
<221> unsure
<222> (182)

<220>
<221> unsure

<222> (202)

<220>
<221> unsure
<222> (418)

<220>
<221> unsure
<222> (447)

<400> 1237
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cantgcccca ggagacagat ggccagtttc ttccctgtgc accggagccc acggaccctc 180
ancgactttc ttcttctgaa gnagactgag agcactcagt gctgcccagg gagccctgtt 240
gcacagactg aaagtccctg tgatttgtca agcatagttg aggaggagaa tacagaccgt 300
tcctgtagga agaaaaataa aggcgtggaa agaaaagggg aagaggtgga gccagcacct 360
attgtggact ctggaactgt atctgatcaa gacagctgcc ttcagagctt gcctgatntg 420
tggagtaaag ggcacggaag gcctttngtc ctgtggaaac agaaatgaag aaactggaac 480
aaaatcttct ggaatgccca cagaccagga gtccctgagc agtggagatg ctgtgcttca 540
gagagacttg gtcacggagc caggcacagc ccagtattcc tctggaggtg aactgggagg 600
catttcaaca acaaatgtca gtaccccaga cactgcaggg gaaatggaac atgggctcat 660
gaacccagat gccactgttc ggaagaatgt gcttcaggga ggggaaagta caaaggaaag 720
atttgagaac tctaatattg gcacagctgg agcctctgac gtgcacgtca caagtaagcc 780
tgtggataaa atcagtgttc caaactgtgc ccctgccgcc agttccctgg atggtaacaa 840
acctgcgagt ctcgag 856

<210> 1238
<211> 358
<212> DNA
<213> Homo sapiens

<400> 1238
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tttccatctt gcatggggta ggggtgggga gacggcaagg gaactgcttg atttatttaa 120
tatataattc ctctaacgtg gatcttcatt ttataggttt tagcttttaa ttgttgcatt 180
tacttcttgc atttaattag tagatgtttt cttttggttg ccagcttaga ttttttatgc 240
tgtaataaaa atggcacctc atcaagtact cttttggttt agttggagtt tacttgcaaa 300
attagtctcc tttgatgggc agtcgtgtga atcattcttt gttcacgaaa cgctcgag 358

<210> 1239
<211> 623
<212> DNA
<213> Homo sapiens

<400> 1239
gaattcgcgg ccgcgtcgac caaattctta tgactttgtg gttttataga tgttctagaa 60
actttgtatg taggtatcta caaaattagt tcattcccct gaatattttt gcattcatat 120
ttttgaggtc ttgatgtttt cagcctctgg cgaatctttt tcattgaatt tgaaccattt 180
gtaaaatctg tgatgctgaa gcagagtgtg tcacaaagtg atgagaacat tactaaaatc 240
cacggacgca ctgcgaccta agggctcaac ggctgactcg gcagcgggca gccaccccac 300
gctcccctgc ggtcactcgc acaccacagc ctgaagctcc cccagcgcct gcacctcgca 360
cacagctaag gtcaaagttc aaacgcactc cacacggaag ctcattctat acccgaagag 420
cagtctcaga aagcaagatt actttgtgt tttttaaaaa atgattcttt aatgtatttt 480
tctaaacatt ctgattggaa gtagtggatt cctaaatgat tccaaagtca cctgtaattc 540
ttctgttttt gttttgttct gtcttttctt cattttggct ttgggtgggg ggaggggcag 600
gtgacacaaa ggacgagctc gag 623

<210> 1240
<211> 323

<212> DNA
<213> Homo sapiens

<400> 1240
gaattcgcgg ccgcgtcgac gatcttacca agatgcatct cacagaaaac cctcatccac 60
aggtgactca tgtgtcttct agtcagtctg gttgtagcat tgccagtgac tctggaagca 120
gcagtttatc tgatatctat caggctacgg agagtgaggt aggagatgta gatttgacac 180
gtcttccaga aggacctgtt gattctgagg atgacgaaga ggaagatgaa gagattgatc 240
gaacagatcc attgcagggg cgagatcttg ttcgagaatg tcttgaaaaa gaacctgcag 300
acaaaactga tgatgacctc gag 323

<210> 1241
<211> 168
<212> DNA
<213> Homo sapiens

<400> 1241
gaattcgcgg ccgcgtcgac cagaatgcga ttcttctgcg gttcgttcac cttgcccgcc 60
aggcagcagt gtgatagggc attgtggatg atgaacttgt tggacttggc gctgggttct 120
ttgtacagcc gtggacctgt gtactcgggc actgacgctg ttctcgag 168

<210> 1242
<211> 428
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (52)

<220>
<221> unsure
<222> (113)

<220>
<221> unsure
<222> (412)..(413)

<400> 1242
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aagcaaatag gcaacttcaa gatcctttag taatcatgac aggaaacatc ccnacatggc 120
ttactgagct aggaaaaacc tgcccatttt tctttccttt tgatacccgg caaatgcttt 180
tttaagtaac tgcatttgat cgggaccgag caatgcaaag attacttgat accaacccag 240
aaatcaacca gtctgattct caagatagca gagttgcacc tagattggat agaaaaaaac 300
gtactgtgaa ccgagaggag ctgctgaaac aggcggagtt tgtgatgcag gacctcggca 360
gctcacgggc catgttagaa atccagtatg aaaatgaggt tggtacaggt cnngggtctc 420
cactcgag 428

<210> 1243
<211> 735
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (65)

<220>
<221> unsure
<222> (443)

<400> 1243
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catcttcccc ttctccacat gcggttggcg caagccaggg gggaatcaga gcccccctac 180
agactcgaag gtgggcttgt ttctgtgacc tgcaagcccc cttcccacct gacttccatc 240
ctctctcttc ccctcgcttg ctgtgctgtg gccatgctgg ggtcctgctt gcacttccca 300
cggatgattc tcagcacatc ccatcagttt cacttttgaa gctgccctcc tgggctgctc 360
ccaccatagg ctgcgtcatg cattccctct tctcagatgg ccgtgccttg cgcctcactc 420
ctgcgtctcc tccagggctc atntcagatg tcccctcctt gccagggctc tccctggcca 480
cctggccaca cgctcactcg cactgctgtt tcttagtgtt tctcagtgtg tgtagcttat 540
ttcttgttgt ctgtggtccc caccatagac tgtgtggtta tgtttgtctt cattcagagc 600
accatgccca gagtccacga ggccctggca cagaggcagc caccaggatg tggttgttta 660
acaaatagat gggagtgtgt ctcttcgatg gcttcttgtc cgtggcagtt ctggggtccc 720
ccccaccgac tcgag 735

<210> 1244
<211> 576
<212> DNA
<213> Homo sapiens

<400> 1244
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcctcgaga tttgatgccg 60
tgttccttct ggaccagttt taagccatct cttctgttgt ttctttcctc ccaaagatgt 120
agacttttcc acttaaaagc atttccaaga ttctattttt tcatcctttt ttctgtccct 180
attctctttc actccccaca cttgttccta gcctgtctct gttgctctga tgtccatgtt 240
gatggtggcg gtcttcaacc atgccatccg tgtgccaacc cagcactttc ctgccatccc 300
tgtagccctt gccccaacat ctgtgcattt gactcccctt ctctgaccga ggcctgctcc 360
catcccctcc tctaccaact catcccttct ctcccacctg ccctttgtgc tgccccccac 420
aaccacacca ctcagggtct cagctcttgg gatcacattg acacaccccc acattttaca 480
ctctgtggcc cattgcttct gagctgtatt gtccagcacc atgaggaccc cacccatgga 540
gacactgggt tttgtaccat ccccagacca ctcgag 576

<210> 1245
<211> 756
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (14)

<220>
<221> unsure
<222> (81)..(82)

<220>
<221> unsure
<222> (85)

<400> 1245
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gaaactctat ttctgttctg nnagngccaa tttcacctat tgtattactt cgttaccaat 120
tgcagctgtg tagtcagtca tccataggat tctttttgtt agacacaaag tagaaaccag 180
ctgttggccg ttgagacaag taggaatctt aggaaatgtt agcctgccag ttcctacttt 240
tcctaactac ctgcctcacc acccccatca aatggtggtc atgtttttg tcacccacca 300
ttcaggggag atgctatcaa cgaaccacgc tggctacaca caaatacctt ttcctcagat 360
gatattaatc atctttgcct taaaaactga agctctacca agttttcact atgagagaaa 420
aaaaattaca acacctagcc ttgtagttaa caccacaact gactaatgga agttgacaag 480
atctaaatgc ttatacaaac tatcccaagg tcacaggaaa ttaatggcaa tattatacaa 540
ggttagggta gttcactttc tataggaatt tggattttac ttcttaaact acaatggaaa 600

tgtctcaggc agtctgcttt gggaatgtat tcttgaataa tactgatttc tcattgaagg 660
aaaaaacact atatccaaca actcagatat ggcagaagtg aagtcaatgt tccgggaagt 720
tcttccaaag caaggtatgt acaccacaaa ctcgag 756

<210> 1246
<211> 539
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (11)

<220>
<221> unsure
<222> (17)

<400> 1246
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gggaaaggtg ttgacaggga gacttgtcta tgactcgatc ttcaatttat tttttacata 120
tatatgagaa gagtgtcaca attattaata aaactgcttt gatcatgtat tgtaaattct 180
gtccctcaac ccaaatccac cttcatactg taagtagtgc aatacttgtt tcatttctgt 240
gtttaaactt ctgagcagtg agacatccct gtgagcagat acaatagcca atgcaagaat 300
ctgtgtgttc cttgctgtac gttagacatt tgtaaactgg attctgattg tcagttttat 360
gagagcaata gcttccttaa agagataagt catatttacc tagtttgtat tttcctactt 420
tagtgacctg aagatgcctg ataatttcat tcagaagaat ttttgaaagg tagtcttact 480
tctttttagt ttttatagct tagcattagt gacttatttc aaaagaccca aatctcgag 539

<210> 1247
<211> 720
<212> DNA
<213> Homo sapiens

<400> 1247
gaattcgcgg ccgcgtcgac ctgaagagag gaggctggct gcatcatggg agaagagact 60
attgggaaga agttacctgc aactacagca actccagact catcaaaaac agaaatggac 120
agcaggacaa agagcaagga ttactgcaaa gtaatatttc catatgaggc acagaatgat 180
gatgaattga caatcaaaga aggagatata gtcactctca tcaataagga ctgcatcgac 240
gtaggctggt gggaaggaga gctgaacggc agacgaggcg tgttccccga taacttcgtg 300
aagttacttc caccggactt tgaaaaggaa gggaatagac ccaagaagcc accgcctcca 360
tccgctcctg tcatcaaaca aggggcaggc accactgaga gaaaacatga aattaaaaag 420
atacctcctg aaagaccaga aatgcttcca aacagaacag aagaaaaaga aagaccagag 480
agagagccaa aactggattt acagaagccc tccgttcctg ccataccgcc aaaaaagcct 540
cggccaccta agaccaattc tctcagcaga cctggcgcac tgcccccgag aaggccggag 600
agaccggtgg gtccgctgac acacaccagg ggtgacagtc caaagattga cttggccggc 660
agttcgctat ctggcatcct ggacaaagat ctctcggacc gcagcaatga catactcgag 720

<210> 1248
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1248
gaattcgcgg ccgcgtcgac atttgagtgg gggcatagcc aaaccatatc acttattaat 60
atttattttc tcaaagttat attctccatt tgggcagtgc taaagatgag aaaaacactc 120
gag 123

<210> 1249
<211> 193
<212> DNA

<213> Homo sapiens

<400> 1249
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaata ctagcccagt ccatctcaga 60
cactctcccc taaaaactct ggtcacatta agctcactgt cctctcaact tctgtgcacc 120
tttgcataag ctgttctttt tactcagaat gctctccttc ctctttgtct taataacatg 180
ggctatcctc gag 193

<210> 1250
<211> 661
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (24)

<220>
<221> unsure
<222> (36)

<220>
<221> unsure
<222> (123)

<220>
<221> unsure
<222> (172)

<220>
<221> unsure
<222> (191)

<220>
<221> unsure
<222> (283)

<220>
<221> unsure
<222> (289)

<220>
<221> unsure
<222> (296)

<220>
<221> unsure
<222> (309)

<220>
<221> unsure
<222> (321)

<220>
<221> unsure
<222> (368)

<400> 1250
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atctkgcaaa gttctgtaat tctaagtgtt gtgctatatt tcctctggag aaggttatta 120

gantctccat tgcgtttctc tttctccatc tctttccctt gaggttagga gncaggttaa 180
aactcagaga nctcccaata ataatggttt aaaaacatca ggggcttcct gtatctcctg 240
tcaggaagcc gaggaataag caggctgggg ctggtgggcg tcnacatcnc agtttngttc 300
tatctttcng tcccacctgc nctgggatgt ggcttctaca ctcgaatttg cttcttggtt 360
tcaagacngt ggtgttcttt ccatagctga gcagattatt ttgagaggtg ggtgatatgt 420
gagagagaaa tctggaacct tcttctgggt agatacagga taagatagat acagggtaaa 480
atgttgagca ctttgtacat gctttgagag cataatcttt gtcatctgtt tttttcccct 540
agacaatatc aggttaccgt caacattaat ccatttaaaa ggacatggac tgttgccatt 600
aatacttttg gattccatat aacccttaac acaataactt ctagaaaatg tgtgtctcga 660
g 661

<210> 1251
<211> 534
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (68)

<220>
<221> unsure
<222> (91)

<400> 1251
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gaaagacnga agagagaaga ggaagaacgt ntaaaacggc ttgaagaatt agaagccaag 120
cgtaaagaag aggaacgatt ggaacaagaa aaaagagaaa ggaaaaagca aaaagaaaaa 180
gaaagaaaag aacgcttgaa aaaagaaggg aaactttaa ctaaatccca gagagaagcc 240
agagccagag ccgaagctac tcttaaactg ctacaagctc agggtgttga agtgccatca 300
aaagactctt tgccaaagaa gaggccaatt tatgaagata aaaagaggaa aaaaatacca 360
cagcagctag aaagtaaaga agtgtctgaa tcaatggaat tatgtgctgc tgtagaagtt 420
atggaacaag gagtaccaga aaaggaagag acaccacctc ctgttgaacc agaagaagaa 480
gaagatactg aggatgctgg attggatgat tgggaagcta tggccggact cgag 534

<210> 1252
<211> 635
<212> DNA
<213> Homo sapiens

<400> 1252
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aggctcattc gacatcatct cccacagaaa gccctcattc tactcctttg ctatcttctc 120
cagacagtga acaaaggcag tctgttgagg catctggaca ccacacacat catcagtctg 180
ataacaataa tgaaaagctg agccccaaac cagggacagg tgaaccagtt ttaagtttgc 240
actacagcac agaaggaaca actacaagca caataaaact gaactttaca gatgaatgga 300
gcagtatagc atcaagttct agaggaattg ggagccattg caaatctgag ggtcaggagg 360
aatctttcgt cccacagagc tcagtgcaac caccagaagg agacagtgaa acaaaagctc 420
ctgaagaatc atcagaggat gcgacaaaat atcaggaagg agtatctgca gaaaacccag 480
ttgagaacca tatcaatata acacaatcag ataagttcac agccaagcca ttggattcca 540
actcaggaga aagaaatgac ctcaatcttg atcgctcttg tggggttcca gaagaatctg 600
cttcatctga aaaagccaag gaacgaaaac tcgag 635

<210> 1253
<211> 319
<212> DNA
<213> Homo sapiens

<400> 1253
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctcc ctcctttctt tctttttctt 60

ttttcttttc ttttttttctt tctttctttc tttctttctc cctctttctt ctttctttct 120
ttctctctct ttcttctttc tttctctctt tcttattaaa aaaatggtat aattctacac 180
aaactggcca aaaacttgtt ttatttgctc gcccttctag gtcaatatgt acaaatctac 240
tttcttattt ctattggcca gccagtgtac ttttgcttgg atgtttcaga aattatttaa 300
ccattcctct actctcgag 319

<210> 1254
<211> 615
<212> DNA
<213> Homo sapiens

<400> 1254
gaattcgcgg ccgcgtcgac agcttttaga aaaggaaaga ggaaaagaac agagacaatg 60
gactcagaaa atgcaaatag tgacatggat aaaggacaga gagacccata ttcgggaaat 120
gcctttctgc ctggtgaaag ctccagtgag gatgaagagc ctttagcaga attgtcaaag 180
gaagaattgt gcgccaaaat aaaaagcctg aaagaaaaac taacaaacac ccggaaagaa 240
aacagccgac ttcgacagtc tttggtcatg cttcaagtgt taccacaagc agtcacccag 300
tttgaagaat tggttggtat ggccgaggct ctgcttaagg gtgggggaac catgtctaca 360
tctgcatcca ccctctggag agcaacaaac aactcctcgc cagattcatt tgcctcaaca 420
tgcagtaatt ctaattctaa ctccagttca ccagtttcct taaagcctga ggaagagcat 480
cagactgatg agaaacagtt ccagattgaa aaatggcaga ttgcccgttg taacaagagc 540
aagcctcaga agtttattaa tgatttaatg caagtacttt acacaaatga atacatggcc 600
actcacaacc tcgag 615

<210> 1255
<211> 454
<212> DNA
<213> Homo sapiens

<400> 1255
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc agagtgaaga 60
aagctggtaa tagatgtctg acaaactaaa gaaagacttg tgttaccaca attcagacag 120
cccggaatat caagattcat ctttttcact aattgtggca ttcacagatc agaacataat 180
acctgaaaat ttgccagcac caacagacaa atgtaaacta aaatatcagc aatgtaaaac 240
tgaaattaaa gagggctata agcagtatag tcagagaaat gcagaaaata caaaatcaaa 300
tgttacacat aaacagtctc caagaaacaa gatagatgaa aagtgtgtgc aagatgaaga 360
agccaacaca gatgacctta cgactctgga taggaaagcc atcttacagc aaggttatgc 420
agacaactct tgcgataaac aacagaggct cgag 454

<210> 1256
<211> 682
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (130)

<220>
<221> unsure
<222> (143)

<400> 1256
gaattcgcgg ccgcgtcgac ggtatacttg aatgttgatt cctgcagcaa ttgttggttt 60
gtgcgttttc ttctatggat tatttacaat gaataatagt caagtaagcc aagaaatttg 120
taaagccacn gaagtcttta tgngccctct ctgtgacaag aactgctccc tgcagagact 180
caacgacagc tgtatctatg ccaaggtgac atatttgttc gataatggag ggacagtctt 240
ctttgctatt tttatggcaa tatgggccac agtcttcctg gagttttgga aaaggagaag 300
gagtatactg acctatactt gggaccttat cgaatgggaa gaagaggagg aaacacttcg 360
tccccagttt gaagccaagt attacaagat ggagattgta aatcccatca cgggaaaacc 420

tgaaccacat cagccttcct cagacaaagt cactcgtctt cttgtttctg tctcaggaat 480
attcttcatg atatccttgg tgatcactgc agtgtttgga gttgtggtgt accgcctggt 540
tgtcatggaa cagtttgcat cattcaagtg gaatttcatc aaacaatact ggcagtttgc 600
aacatctgct gctgctgtct gtatcaattt cataatcatt atgttgctga atcttgctta 660
tgaaaaaatt gcttacctcg ag 682

<210> 1257
<211> 124
<212> DNA
<213> Homo sapiens

<400> 1257
gaattcggcc aaagaggcct actacgactg accagcaacc tccttttcct ttgtgtttta 60
tatatcttta aaatatcttg tcagttttgc tatgtatgtt cttccattca ccaccgcccct 120
cgag 124

<210> 1258
<211> 535
<212> DNA
<213> Homo sapiens

<400> 1258
gaattcgcgg ccgcgtcgac gaagaaaatt ctaagtccta ttggttaaag ggggaaaaaa 60
agcatctagc tccagcttca ggcactattg aattcaggaa ttttgacaag ccaagggctg 120
tcactctcca cctctccaca gtggttatct ctacttgatc ctcactcaca agcacaccat 180
gtccaagtgg tggaaaagat ggttcttggc aactccaagc ttacatctca tctcctttta 240
gaaattctct tcccaactat tccagcaaga attccagatt gcagtctcat tggtagatct 300
tatagtccat gcacatctcc aaatcaatca tctaatctct ggttgcccac tttagagcca 360
gagggcaggg tcagccccaa gaaagctgca tagactatga acggaggcca gatcagggac 420
ctcttaccaa aatgtgttgg tggataagca aaatctaggt tcttgttatc aacaacaatt 480
atagttaaag ctgtcacaga cattcaaacc tgtgctttct ccccctccac tcgag 535

<210> 1259
<211> 533
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (35)

<220>
<221> unsure
<222> (54)

<220>
<221> unsure
<222> (63)

<220>
<221> unsure
<222> (74)

<220>
<221> unsure
<222> (80)

<220>
<221> unsure
<222> (118)

<220>
<221> unsure
<222> (132)

<220>
<221> unsure
<222> (151)

<220>
<221> unsure
<222> (158)

<220>
<221> unsure
<222> (170)

<400> 1259
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canttgtcac tcanggtctn cctcaaaatg gactgctttt ttagggtatg tgtgggantt 120
gggattaggt tnggctattg ataactggaa nttcaaantg gctatggttn aataaacaca 180
caatggttta ttctctctca aaaaagagtc tgaaggtagg tacacaaggt ctggtatgat 240
aattttacga agtcatccaa aaaaacccca taattcttct gtctttctgg tctgctatcc 300
caatacttgg cttgtatcct caaggccact ttgtggtcca agatggttgc tggagtttca 360
cctccagttg aatgagtctg agttgtagac taaaaaaagg aaaggtaaaa agttagaaaa 420
gacttcctca aaactgttgt ctcttacctt gataagtagc cttcccagaa acccttaaca 480
cttctactta gatcttattg tacagaactt agtcacgtgg ccacagactc gag 533

<210> 1260
<211> 512
<212> DNA
<213> Homo sapiens

<400> 1260
gaattcgcgg ccgcgtcgac ccaagaagtg cagtggaaca gctctgtttg gctgaaagta 60
ctcgaccaag gatgactgtg gaagagcaaa tggaaagaat aagaagacat caacaagcgt 120
gcctgaggga gaagaaaaaa gggttaaatg ttatcggtgc ttcagaccag tcacccttac 180
aaagcccttc aaatttaagg gataatccat ttaggactac tcagactcga aggagggatg 240
ataaggaact ggacactgcc attagagaaa atgatgtaaa gccagaccat gaaactcctg 300
caacagaaat tgttcaacta aaagaaaccg aaccccaaaa tgtggacttc agcaaagagt 360
taaaaaaaac tgaaaacatt tcatatgaaa tgctttttga acctgagcca aatggagtaa 420
attctgtgga aatgatggat aaagaaagaa acaaagacaa aatgcctgag gatgttacat 480
tcagccctca agatgaaaca cagacactcg ag 512

<210> 1261
<211> 667
<212> DNA
<213> Homo sapiens

<400> 1261
gaattcgcgg ccgcgtcgac ggaagcggag gaagctgatg aaagcagtga agaagaggac 60
tgcactgcag gagagaaggg catttcagga tcaaaggctg ctggagaagg tagtaaagca 120
gggctgtcac cagctaattg ccagagtgac cgtgtgaatc tggagaagtc tttgctgatg 180
aagaaagcag ctctccccac tttcgattct gggcattgca cagctgaaga ggtgtttgca 240
tctgaagatg aatctgaaga aagctcctca ctcagtgcag aggaagaaga ctcagaaaat 300
gaagaggcta ttagaaaaaa gctttcaaag ccttctcaag tgagcagtgg tcagaaactg 360
gggccacaga acttcattga tgagaccagt gatatagaaa atttactcaa agaggaagaa 420
gattacaagg aagaaaataa tgattccaaa gaaacgtcag gtgccctcaa gtggaaggaa 480
gacctttcca gaaaggcagc tgaggccttt ctgaggcagc agcaagcagc tccaaacctc 540
cgaaagctta tttatgggac agtgacagaa gataatgaag aagaagatga tgatactcta 600
gaagagcttg gagggttgtt tcgtgtcaac cagcctgaca gagagtgtaa gcacaaggca 660

tctcgag 667

<210> 1262
<211> 734
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (340)

<220>
<221> unsure
<222> (625)

<400> 1262
gaattcgcgg ccgcgtcgac aattctagaa ctgcctcccc atccaacggc actcacaaca 60
actcggtgct cccagttaca gcatcagccc caacatctct gcttcctaag aacatttcca 120
tagagtccag agaagaggag atcaccagcc caggttcgaa ttgggaaggc acaaacacag 180
acccctcacc ttctgggttc tcgtcaacaa gcggtggagt ccacttaaca accacgttgg 240
aggaacacag cttgggcact cctgaagcag gcgtggcagc tacactgtcg cagtccgctg 300
ctgagcctcc cacactcatc tcccctcaag ctccagcctn atcaccctca tccctatcaa 360
cctcaccacc tgaggtcttt tctgcctccg ttactaccaa ccatagctcc actgtgacca 420
gcacccaacc cactggagct ccaactgcac cagagtcccc aacagaggag tccagctctg 480
accacacacc cacttcacat gccacagctg agccagtgcc ccaggagaaa acacccccaa 540
caactgtgtc aggcaaagtg atgtgtgagc tcatagacat ggagaccacc accacctttc 600
ccagggtgat catgcaggaa gtagnacatg cattaagttc aggcagcatc gccgccatta 660
ccgtgacagt cattgccgtg gtgctgctgg tgtttggagt tgcagcctac ctaaaaatca 720
ggcattctct cgag 734

<210> 1263
<211> 764
<212> DNA
<213> Homo sapiens

<400> 1263
gaattcgcgg ccgcgtcgac aagggtcctt tatactgtcg gtcgtgggga tctgccaggt 60
tatcaatttg acaccttaag ccatctcact caagaatagt acagatgtgt ggaatatgcc 120
aataccttta actccagaca tcatgttctc aagataaaag ctttttaaaa caaaaagcca 180
tcgtatgtct catcaacatg aaattggaat gcaaaattaa tactgctgag gatttccctc 240
atatcccatg ctgtttaact atctattcta cagtcctaga atcaatcttt tttttaggag 300
acaaggtctt tgttacgaag gctggagtag agtggtgcca tcaaagctca gtgcagcctc 360
caactcctgg gctcaatcct tttgcctcag cctccccttc ctgagtagct gcaaccacag 420
gcacacgccc caatacccag ctagttttta aatttttgtg gagatgaggt gtttgttact 480
ttcttgccca ggctggtctt gaactcctgg tttcaagcaa tacacccacc tcagtgtggg 540
gattgcagac ttgagccact gcacctggcc tggaaccaac ctttatggct atcaatactc 600
ccatcagtta actgtctcag gtatcataat atcccttctt atatgtatca aaactcatac 660
tgaacaatga gttctgggtt gcaaaaagta catattaaaa ttttaaatgc tgggcacggt 720
ggctcacacc tgtaattcca gaactttggg actacaggct cgag 764

<210> 1264
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1264
gaattcgcgg ccgcgtcgac ttgagattgc tattaagatc gtgctctact gtgatgattt 60
gggtttgttt gataatcaga aaaaagcata tccttttggg tgttcagcca cactgctttg 120
gtgtcacaac tgcacattgg tttcacagct gcaggacaag ttcgagcatc ttaaaatcat 180
tcaacaggag gagataagga agctcgag 208

<210> 1265
<211> 128
<212> DNA
<213> Homo sapiens

<400> 1265
gaattcggcc aaagaggcct agtcgattga attctagacc tgcctcgagt gcgatgttgt 60
tatctgacag ttctccgtcc ctactggcct ttctcctcgt cttcatattt gtacggtaca 120
agctcgag 128

<210> 1266
<211> 472
<212> DNA
<213> Homo sapiens

<400> 1266
gaattcggcc aaagataggc ctctttggcc gaattcggcc aaagaggcct aagaattcaa 60
tcgacggttt agggtggaat cggagctgtt gtattgcctg ggtgtctac tgcagatatt 120
tcatcaaata aggatgatga agaaaactct atgcacacta cggttgtgtt gttttctagc 180
agtgacaagt tcactttgaa tcaggatatg tgtgtagttt gtggcagttt tggccaagga 240
gcagaaggaa gactacttgc ctgttctcag tgtggtcagt gttaccatcc atactgtgtc 300
agtattaagg taaacatcct taaattgagt taacaaatat gtactgaatt tttatttggt 360
tttagtagta acatgagctc ccagttctca caattaagta ttatgattat taaacatatg 420
tgacagtatt taagcacttt aaatactgct tttaagggtt tcctatctcg ag 472

<210> 1267
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1267
gaattcggcc aaagaggcct acgaggtggg ggagtttatt aaattaatgt taattaagct 60
agtgttggtc aaatatacca tataaaagaa taggttgtga ttcattccta actaaggaca 120
gactacatat gaatgtccaa atggggctaa ttgtctttga gctaatatcc tacattctcg 180
ag 182

<210> 1268
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1268
gaattcggcc aaagaggcct aagtttgcct agcacatcca ctcccataaa aacaaatcag 60
aaaccccc aa ctaattatca aatactgact tatagaatac ctattcttga aataatggag 120
acaacacaca aaaaagcagg aaacagaaac acacgcaccc agacactcga g 171

<210> 1269
<211> 797
<212> DNA
<213> Homo sapiens

<400> 1269
gaattcggcc aaagaggcct agattgaatt ctagacctgc ctcaatttat ttttaaaatt 60
cacttacgta aatggaatgt gcttttactc ttcttaaaaa agcagctttc atatcacacc 120
cttgtttaca gaaaagctac atgtgctgca tgctgacttt gacacttaag tagcttcttg 180
gatcaaaatg gcttctagat actaaatgcc acttaattca gcactattct tggttggtct 240
gtataagtaa cactttaaaa cttgcagctc tggaaagaca gaactttact aacaaagtag 300
aaagtgattt caaagtatct tccacaaaag attgtactgg taggcggttg acaacattct 360
gttcgatcta ctttcaaatt tctagagaaa atcattttgg aatactactg tactgattct 420
tggccttcgt tgtctctaaa agtgctgatt ttaacattat cttaaaactg tccagtttga 480

attgagcttg ttttcatcaa tatacatatt gaaaattcct ggtgtagaaa actcaacatg 540
tgctgaatac ggggtgtact tcccttcaac tacctaaaag gctgaacttt tgttaaatct 600
taaagaaatg gtcccaacag cttaacttca ttttttaat gatagttgaa tgtgttttcc 660
ataaaaattt cttttaaaaa gaggcaactg attaaaacaa caacatggcc agcaccatta 720
tacaagtaat gttattgagt ttacaactga agttctgtaa aattgtttct agatcgacag 780
aatgttgtca tctcgag 797

<210> 1270
<211> 329
<212> DNA
<213> Homo sapiens

<400> 1270
gaattcggcc aaagaggcct aggcgggggg gttggaggag gaggcagagt tcaccctgcg 60
aggcagctcg ctctcctttt tcattgatgg gctgtcactc agccgcagca ggatgggctg 120
gtctgaggtg ataacattcc cattcatgtg aaggttgcac ttcatcggct gcccgtccag 180
acaccggttg ttgtacttct tatatgcggt gatggcatcg tccttttca caaacaccac 240
ctccgctacc ccaggatgga ccagtcgagc tcgcttgagg gccccacaca cacagaaaag 300
ctcaacaatg tcctcctcag tgactcgag 329

<210> 1271
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1271
cagtggcctg agaggaagag accagcagga aggaaagatc ctcagcaaca aagtaaaacc 60
agaacaacag aggacctttc tgtgtaagaa tatttggctt tagaaggtaa ataaaataat 120
tatatttctt agaatttttct gactatccct aaatcctgca ggtaaattat tcccaacaaa 180
ttttcaaaag gcaatcaata ataagtaggt tcttcttcaa taacatgagc atatgcttct 240
taaagactgg 250

<210> 1272
<211> 311
<212> DNA
<213> Homo sapiens

<400> 1272
gaattcggcc aaagaggcct agagagattg acaagctgga cagcatggtg tcagaaggga 60
aaggtgacga gagctacagg gagctcttca gcctactcct gctggagaag gttgaacaag 120
aaacatggcg cgagaccggc atttcctttg tgacctcagt cacccgcctc atggaacgtc 180
ttcttgacta cagggactgc atgaaaggag aggaaacaga gaataagaag ataggctgca 240
ctgttaacct gatgaatttt tacaaatctg agattaacaa ggaagaaatg tatatccgct 300
acatcctcga g 311

<210> 1273
<211> 127
<212> DNA
<213> Homo sapiens

<400> 1273
gaattcggcc aaagaggcct acgagttctt cctctttaca cgccactagg tcaccaaact 60
gtccctgaaa tttccaccca acttggatat ttactcctcc aagatgcttc cctacccccc 120
actcgag 127

<210> 1274
<211> 126
<212> DNA
<213> Homo sapiens

<400> 1274
gaattcggcc aaagaggcct acttcagctg tcttggttgt agcctctcat ttcccaaaaa 60
cagagaagga aataaatatc caaattcatc tctcacctga tgcggttcct ctccacgcat 120
ctcgag 126

<210> 1275
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1275
gaattcggcc aaagaggcct agggaccatt tagttaccat gaaaagcagt tcctattgga 60
aaggcaagtt aaatgtttct tttttgttgt tgttgttgtt gttgttgaga gagtctcagt 120
ctgtctccat ggctagagtg cagtggtgca atctcagctc actgcaacca cagcctctcg 180
ag 182

<210> 1276
<211> 115
<212> DNA
<213> Homo sapiens

<400> 1276
gaattcggcc aaagaggcct attttttttc ccctgaacta ttggaattct tatgggcttc 60
tataacttat aaaacatata catgcatata aattttccag tgaacattac tcgag 115

<210> 1277
<211> 320
<212> DNA
<213> Homo sapiens

<400> 1277
gaattcggcc aaagaggcct agatggtttt gaactggaac tgtggaccca tccacagacg 60
tctatggggt ccagtgtgtg ttacaatttc aacctgggaa agccattctt catcttcctg 120
tccactatgg tcagaagcta aactgtcgta agacccatgt cgagtaatgg gcccaggact 180
tccagggggga accaggccag caagcaggaa ctgataatac tgtactgcat ctgcagcgag 240
gagcagaggg tggtttgcat taaacggtgg ctgcaattca ttccattgag ggttctaac 300
cagagtccag ctggctcgag 320

<210> 1278
<211> 436
<212> DNA
<213> Homo sapiens

<400> 1278
gaattcgcgg ccgcgtcgac taaaattttt caccagagta aacttgagaa accaactgga 60
ccttgagtat tgtacatttt gcctcgtgga cccaaaggta gcaatttgaa acatgaggag 120
tacgattcta ctgttttgtc ttctaggatc aactcggtca ttaccacagc tcaaacctgc 180
tttgggactc cctcccacaa aactggctcc ggatcaggga acactaccaa accaacagca 240
gtcaaatcag gtctttcctt ctttaagtct gataccatta acacagatgc tcacactggg 300
gccagatctg catctgttaa atcctgctgc aggaatgaca cctggtaccc agacccaccc 360
attgaccctg ggagggttga atgtacaaca gcaactgcac ccacatgtgt taccaatttt 420
tgccacacaa ctcgag 436

<210> 1279
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1279
gaattcggcc aaagaggcct acacgttttg gttttgttat cctggttcac atcctccacc 60

gtggtgagga gaggtggtga gggcagcgtg ctggtgtctt gctctccact gctgtgtttc 120
cttctctgct tgacagcagc aacgaggtca ggccctgaaa acatggagaa caagctgtcc 180
ccgttggctg aggatgtctc atcactcgag 210

<210> 1280
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1280
gaattcggcc aaagaggcct atcgattgaa ttctagacct gcctcgagat gggtgctgcg 60
gctctcacgc ccgtttcaca gatgggaacc tgcatcacag gcatgcagct ccgggttggc 120
tcctcacccc ctccatgctg gcttgcacag gctaccagca tggtgtgtac acgtgtgtgt 180
gtgtgtctgt gtgtatcatg gtgtgtgacc tgtgtctgtc tgtactcctg ttatttatat 240
ccctttgctg gttgtgctaa aagcatagat ttaaatcata caagatgtaa tttagatggc 300
tcactcgag 309

<210> 1281
<211> 322
<212> DNA
<213> Homo sapiens

<400> 1281
gaattcggcc aaagaggcct aggaataata attgttgaaa agggtcctgc attttcattt 60
tacataaggc cctgtgcatt atgtagttgg tcctaagaac atatattttt gcaacattaa 120
agatcaagat tttctttaat ccaaatgtga gggaaaaatg aattactatc cctataactg 180
tacttttttt tctttttttct tccttctttt tttgagacag agtctcgctc tgtcaccagg 240
ttggagtgca gtggcgcaat ctcagctcac tccaacctct gcctcccagg ttcaagcgat 300
tctcctgtct cagcctctcg ag 322

<210> 1282
<211> 166
<212> DNA
<213> Homo sapiens

<400> 1282
gaattcggcc aaagaggcct acacctgttc ccttttactt ttttaagcgc gcctgctata 60
aaatatgaaa ttgcctgcat ggctcccatt catggatcct attacatttc tatctgccag 120
tgtaggttgg tgcagtcaca agacaatgct tcaggagaaa ctcgag 166

<210> 1283
<211> 346
<212> DNA
<213> Homo sapiens

<400> 1283
gaattcggcc aaagaggcct aattgaattc tagacctgca cgacacacac acgctctcca 60
gtcccgggac tggagagcgt gtgtgtgtcg tgcaggcaga atgagtttgg ggaggaagcg 120
ttgagagtgt ccaggaagaa ttgtgtcttt tttggagaga ccggaggtag gtgaagggat 180
cctgaaggca gagactgtgt tcaggtggca ctgttttttt ggggggcggg gggggcaaat 240
tggtagggcc ccacagcagt gaaaaggtga tcagaagtgg agtgggatcc ccgagcgagg 300
tgtcagtgtc tgtggggggg ggataaatcc agtgcggtta ctcgag 346

<210> 1284
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1284
ggtgccatat tttggggtag tgtgttctgg actccatcag atagggttc ttgtggtcat 60

ctgtccagat tatctagatt tatagttaag taaaatagac atatatctat ttccctaaaa 120
agtattattc gaagacagag acgaggaagg ttaccaaaat agatggtcag gctcgag 177

<210> 1285
<211> 410
<212> DNA
<213> Homo sapiens

<400> 1285
gaattcggcc aaagaggcct agtcctgccc ccaaaattta caccataaat tttcgccata 60
cttcactact ctttctcatt tttgtttttc cattattaat ataaaaagcc aggaatgtga 120
ggtcttctga gaaagctgca ccatggtcaa gccattgtaa cctctgtgac ccacacgtat 180
acatccagaa ggcctcctgg agccagaaag tctaggacaa caggaaaacc acaaaagaag 240
aaaaacagct agctgctgtc ttagcttatt agccaacctt gcaacattct accattgtaa 300
cagactctac cctaactgat ctatcaacct tgtgacattg tgccctgtga cccttcccgc 360
ctgtgacccc ttccccctca atagatgagc aggtctagaa ttcaatcgag 410

<210> 1286
<211> 143
<212> DNA
<213> Homo sapiens

<400> 1286
gaattcggcc aaagaggcct agtctatttc caaagcttta ttgtattcat tcatagcatc 60
cacatggcgt ccaactttaa aatagtcaac tccgatcttc acacatttta aagcccaaga 120
tgcggattgt ttctttactc gag 143

<210> 1287
<211> 741
<212> DNA
<213> Homo sapiens

<400> 1287
gaattcggcc aaagaggcct aaccttggga gctaagtagt tgctgcactt gaccactatg 60
aagattggtg tgggaagggt ccttttggat gcacttgagc agggccccta atccctgggt 120
cacaggcctg tattgggcca cacggcagga gatgggacca tctagttgca gaaaaacaag 180
ctcaggactc ccactgattc tacattatgc ctcagctgag atgtctcacc tcactctcta 240
tgatgcaacg agaagcccct tgggagcgtt tcagtcccac tctatactcc tgtcattgtg 300
ctcatcacag tctggcttcc caaaatcaaa ttcctggttc aaaaattgtc tttcctgatc 360
ctggcttttg gatgccacag aaggcccctg gagcacccag aagagaggta aacaggatta 420
cctgacacag ttaggtacat gggattacca aaatgatctt taatattcct caggttatat 480
tttagggaat aatattaata tatgttccaa agttgtatgg gatttctaaa attctaatgt 540
ctgagtatat gctatcgatc acaattaagg ttgttaagtt attgtaaact atggagataa 600
ccaaatgtat ttgtcagttg tgtttctgac tgtaactacc ctggacattt tgttattcat 660
agacaattgt tgtcttgttt tgatcctctt caaaggatgg tttataatca gctacagaac 720
ttcaccaggc gccttctcga g 741

<210> 1288
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1288
gaattcggcc aaagaggcct aggcttgggt atctgggcct ttagtttttc tatgctgtca 60
catcctaatt ctgtcatgcc atccatgaac tcctgtttgg agaactcgca ctgtgttgct 120
gctctgaact tccatgcaat aatcaacaca ctaatgctgg ctgttctcga g 171

<210> 1289
<211> 132
<212> DNA

<213> Homo sapiens

<400> 1289
gaattcggcc aaagaggcct agtgcgggag tccatgaaaa tacatacact agcagccatt 60
gtaaggtcta tctcattatg tttgccaaac tttgaagtct gggcaagcat cccgtttctg 120
cgcccgctcg ag 132

<210> 1290
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1290
gaaattcggc caaagaggcc taatcacaag gggtatatt aatttatttt tatttctcta 60
tctctctatt ccactgtacc aactaaaggc tagggttttt tttgtttttt ttttgttttt 120
ttacttatac ttgacaatag tagaacacct aggaaaatcc actgctacat gattgattta 180
gtaagagttc tcgag 195

<210> 1291
<211> 327
<212> DNA
<213> Homo sapiens

<400> 1291
gaattcggcc aaagaggcct agtaaaagtt tatctttttt tcctgatgat gtttagagtt 60
tggaaagttc tctttttgtt tgtttttaca ggtggtatag ttagggtcaa agaactggac 120
tggctgaagg acgacctctg cacaggtgtg tgtttctctc ggacgtcccc cagtatgatt 180
cagtgattcc tttgtaatac ctcagtgccc ctggctctgt ggtcttgaca gagctgtagt 240
cccagctgct gccacagtcc catcggcgca tggcagcttc tctccattgg ccgatgagca 300
ccaactgtca ttctccgagg cctcgag 327

<210> 1292
<211> 598
<212> DNA
<213> Homo sapiens

<400> 1292
gaattcggcc aaagaggcct agaagataaa ctgaaacttc tctgccttcc cgctgcaaga 60
gtgaatgagc gatccctctc aactgactca aaatgtttgc ctcacccagg agatggagct 120
ctcgaaggcc ttctctggcc agcggacact cctatctgcc atcctcagca tgctatcact 180
cagcttctcc acaacatccc tgctcagcaa ctactggttt gtgggcacac agaaggtgcc 240
caagcccctg tgcgagaaag gtctggcagc caagtgcttt gacatgccag tgtccctgga 300
tggagatacc aacacatcca cccaggaggt ggtacaatac aactgggaga ctggggatga 360
ccggttctcc ttccggagct tccggagtgg catgtggcta tcctgtgagg aaactgtgga 420
agaaccagca ctgctccatc cccagtcctg gaaacaattt agagcccttc ggtccagtgg 480
tacagcggca gcaaaagggg agaggtgccg aagtttcatt gaacttacac caccagccaa 540
gagagaaatc ctatggttat ccctgggaac gcagatcacc tacatcggac gtctcgag 598

<210> 1293
<211> 256
<212> DNA
<213> Homo sapiens

<400> 1293
gaattcggcc aaagaggcct agaggcactt acaactttaa acttcccttt gagtattgct 60
tttgcagtat cccataggtt ttgttatgtt gtttccactt acatttgttt caagaaattt 120
ttcagtttcc ttttaattt cttcatggac ccactggtca ttcatgagca tattgtttaa 180
tttccacgta tttgtattcc tcttgttatt aatttctagt tttattccat tgtggtcaga 240
gaagatgcat ctcgag 256

<210> 1294
<211> 300
<212> DNA
<213> Homo sapiens

<400> 1294
gaattcggcc aaagaggcct agggcctccc aaagtgctgg gattacaggc atgagccact 60
gtgcctggcc atttgccata acttttaatg agagggtagt tccagctaca gattgaggta 120
gtatgtgaat aaggatagaa agtggatata aaagtatttt tgttactttt taagaaagaa 180
ttatcagaag gctcaaattc tgataatttt agctaatagt attctaccta agaagtaaac 240
aaaggcccag aaattagatg atatgtccaa ggacatagta aatggggagc caggctcgag 300

<210> 1295
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1295
gaattcggcc aaagaggcct agctagttgt tcaagtatat tttaattata ctaatataat 60
ctcaacatat ttaacacaca catattttgg ttcattattt atgtaagcat gattacctcc 120
tctgtggtca cttacagttc ccacacactc gag 153

<210> 1296
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1296
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ctatgatttt gtcttccgtt ggtgctcttg caaccagcgt ttggctctgt ttgctttgct 180
attttgcctt tccattccag cttttgattg catctacctt cattggtgca ttttgtggca 240
attataccac attttgggga gccctcgag 269

<210> 1297
<211> 577
<212> DNA
<213> Homo sapiens

<400> 1297
gaattcgcgg ccgcgtcgac cttatctttt ggagcaaatt gacatgctgt tttttggtgg 60
ttctgctgtg tctgggataa cctcggctgt ttacagtgtg gcccggagcg tcttggctgc 120
cgccctgctc cacgcagtct gcttcagtgc agtgaaggaa ccgtggagca tgcaacacat 180
cccggcactg ttttcggcct tctgtggcct cttggtcgcc ctttcttacc atctgagccg 240
tcagagcagt gacccatctg tactcatgtc cttcatccaa tgcaggctgt ttcctaaatt 300
tttacatcaa aatctggcag agtcagctgc tgaccctctc cccaagaaga tgaaagattc 360
agtgacggat gtcttaaaat gggatctcat cgtctgcgca gtggttgctg tcctctcatt 420
tgcagtcagc gccagcactg tattcctgtc attgcgacca tttctcagca tcgtgctgtt 480
tgccttggct ggagccgtgg ggtttgtaac acattacgtg ctccctcagc tccgcaagca 540
tcatccctgg atgtggattt cacaccccat actcgag 577

<210> 1298
<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (147)

<220>
<221> unsure
<222> (225)

<220>
<221> unsure
<222> (241)

<220>
<221> unsure
<222> (273)

<400> 1298
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cagccccagg aggaggggca gatagctaca ggccccccca acccgctcta ggagagcagg 120
aggggcacgc acaggtcggc tcttccntcc tccacccgag cactccagag agctggagct 180
gggcatcccc ggttgggtgg tgaccctggc tgtgtggcct gcacntgatg cagcatgtat 240
ntcacacaga gctggccaag ctcctgcgat ctnttctaga gtgagtgaga tcagacggat 300
gcttccaggc ctgcacacgg ggcagcatga gcagcacgtg accagcgtgg ccctcagccc 360
tttgcaggct gctgcagtga ggcagggaac acactggact cctggcccaa gagctggttc 420
tgccactcga g 431

<210> 1299
<211> 378
<212> DNA
<213> Homo sapiens

<400> 1299
gaattcggcc aaagaggcct agaagtggac caaaggtcta cctcatgctc attctgcctg 60
tttggaagag cttaagcgca gctatgagtt ctatcggtac tttgaaactc agcaccagtc 120
agtaccgcag tgtttatcca aaactcaaca gaagtcaaga gaactgaata atgttcacac 180
agcagtgcgt agcttgcagc tccatctgaa agcattactg aatgaggtaa taattcttga 240
agatgaactt gaaaagcttg tttgtactaa agaaacacaa gaactagtgt cagaggctta 300
tcccatccta gaacagaaat taaagttgat tcagccccac gttcaagcaa gcaacaattg 360
ctgggaagaa agctcgag 378

<210> 1300
<211> 367
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (356)

<400> 1300
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agacccacac agccttggag agaccttcag aaactaagga ggagttttat attaagggag 120
acattttagt cagtaagacg atataaccta cttactccgt aaggggaaat gaaggcccgg 180
agaagggaag ggacttgacc gaggtcccac ttctgtttcg aggcagaagc cagactaatt 240
ttcatgcctc ctgactccca atcagtttca caaagggatt caatctgttt atatacgtta 300
cattcctgga tacgaggtct tttgatgttc agagtaactg actagttagt attagnagac 360
cctcgag 367

<210> 1301
<211> 1006
<212> DNA
<213> Homo sapiens

<400> 1301

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tctggagaaa atggagacaa ttttaacagg actccagctt catcatcaga aatggatgat 120
ggaccttctc gaagagatca tttcatgaaa agtggatttg cctctgggcg gaattttgga 180
aacagagatg ctggtgagtg taataagcga gataatacat ccacaatggg tggttttgga 240
gttggaaaga gttttggaaa cagaggtttt tcaaacagca ggtttgaaga tggtgatagc 300
tctggtttct ggagagagtc tagtaatgac tgcgaagata atccaacacg gaacagaggg 360
ttttccaaga gaggcgataa tgacttagac ccagacgaat gtatgcagcg cactggtggc 420
ctttttggtt ctagaagacc agtattaagt ggcacaggta atggtgatac ttctcaaagc 480
agaagtggca gtggaagtga acgaggtggt tacaaaggtt taaatgaaga agtaataaca 540
ggctctggaa agaattcttg gaagtcagaa gcagaaggag gagaaagtag tgatactcaa 600
ggaccaaaag tgacctacat accccctcct ccacctgagg atgaggactc catctttgca 660
cattatcaga caggcataaa cttcgacaaa tacgacacta ttcttgtgga agtgtctgga 720
catgatgcac caccagcaat tctgactttt gaagaagcta atctctgtca gacactgaat 780
aacaacattg ctaaagctgg ttatactaag cttactcctg tgcaaaaata cagtattcct 840
atcatacttg caggacgaga tttgatggct tgcgctcaaa cagggtctgg gaagactgcg 900
gcttttctcc taccaatttt ggctcatatg atgcatgatg gaataactgc cagtcgtttt 960
aaagagttgc aggaaccaga gtgtattatt gtagcaccaa ctcgag 1006

<210> 1302
<211> 596
<212> DNA
<213> Homo sapiens

<400> 1302
gaattcggcc aaagaggcct agggagaagg agaaccgcac cacgatggaa agggaaagag 60
ccctgcagga gctggaggaa gaaacagcca gacttgaaag gaagaataag acgttggtcc 120
acagtataac agaacttcaa caaaagctta caaggaaatc acaaaagata accaattgtg 180
aacaaagcag tccagatgga gccctagaag agacaaaggt taagttacaa cagctggaag 240
cttcctatgc atgccaagag aaggagctgc tcaaggtaat gaaggagtat gcatttgtga 300
cccagctctg tgaagatcaa gccctctaca taaagaagta ccaggaaacg ttgaagaaaa 360
tagaagaaga actagaggct ctgttccttg agagagaagt atcaaaactc gtgagcatga 420
accctgtgga aaaagagcat accagccaaa ataatgaggg tactcctacc caaaagacag 480
caagattatt cagtaaaaag atttttgct gtctcttttt catcacccta tttttcatca 540
gactgctgag ctacatgttt tttcatgtaa gattcataaa tccagctctc ctcgag 596

<210> 1303
<211> 117
<212> DNA
<213> Homo sapiens

<400> 1303
gaattcggcc aaagaggcct aaggaattat agaagagtta taaagttcta ttgaagacat 60
tgagtatagg caatgtctgt aaagaaagag aaagaggcac aaggcaaagt tctcgag 117

<210> 1304
<211> 123
<212> DNA
<213> Homo sapiens

<400> 1304
gaattcggcc aaagaggcct acgagtctgt tgtgccttct tcttcttctt gctttttttgg 60
ctgctccacc tcattggcag tgggctgcat tgcttcatta tgctcttctt ccaatatctc 120
gag 123

<210> 1305
<211> 140
<212> DNA
<213> Homo sapiens

<400> 1305

gaattcggcc aaagaggcct aactggtccc caccaatctt ccagaagatt tttaggagac 60
gtagaatact gagaaaataa ggtgagtagc attcaagaat taaggtaagg atcttcatga 120
aaacttgctg gatcctcgag 140

<210> 1306
<211> 332
<212> DNA
<213> Homo sapiens

<400> 1306
gaattcgcgg ccgcgtcgac cagattgact gaaaagtcac atgaagagtt gattgtcttt 60
taatggtatg ttttaaacag ctgacatttt aaattttgat gaaatccagt ttattcgttt 120
gttcttttat gctttgggtg ttgcatccga gaaatctttt cccatccccc cttctcaacc 180
ccacctctcc tgtaaccccc tttcccttgg ccatgatgcc ggggcccttt aaccctcttt 240
ccatggaagt cactttacag ctgcatcgtg cctcctactc cactgagtgt gggaggccca 300
aacggctgcc cactgacccc tacccactcg ag 332

<210> 1307
<211> 314
<212> DNA
<213> Homo sapiens

<400> 1307
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagacca tgggaggttt 60
tgtttgtaaa atcatagaac agatcctgaa gcagaataag acatacccac tgctcttgct 120
cttacccttc cagaagagtt ggccatgact tgattatctc caagacaaca gtgactccta 180
gatgtgtctt cagcccctgc cttttgtgac atcatttgca ttttttcaat tgcccaccag 240
aggtggccac tgggttttca ttttgggttg cgtataccta acctaattcc ttctctgatt 300
cccccaaact cgag 314

<210> 1308
<211> 332
<212> DNA
<213> Homo sapiens

<400> 1308
gaattcgcgg ccgcgtcgac ggggcagatc ttcagaagaa cgaagttcag cacagtccca 60
ctggagccag ggagcactgg gactaacttc aaggcttctg attccttgat ataagagtgt 120
gagtcaatct tagactcttt taaagagaaa atggtcagta acctatcact acaaacaact 180
ggggatgcag ataagtattt gtgaaaaaca gaagttctgg agactggttc aaatctcagc 240
tacttcaatt accatgggac aaatgtactc ttctgaaact tcggtttcct catctgtaaa 300
atggagatgt agcaccttag agggctctcg ag 332

<210> 1309
<211> 232
<212> DNA
<213> Homo sapiens

<400> 1309
gaattcgcgg ccgcgtcgac tagcgagacc ctgtctcaaa aataaataca tgaataaatt 60
gaatttaact gtgcctaact atagtttacc atgccacccc tttggggtgt gcagtgcagc 120
aggcccagaa ccccttgctt tgcaaaatgc agctttttgt ggtccccaca cttgcctagt 180
aaccgccgtt ttgttttgtt ttgtgtttgc ttccagaact ccaagactcg ag 232

<210> 1310
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1310

gaattcgcgg ccgcgtcgac ctaaaccgtc gattgaattc tagacctgcc tcgagtaaaa 60
tggttgaaac ctggttctgt ctgtcctcag ccaggtcgtt ttttttaaat ttttattttta 120
ttttattttta ttgtattttta ttttattttta ttttattttta ttttattttta tttgagacgg 180
aatttcgttc tgttgcccag gccctcgag 209

<210> 1311
<211> 128
<212> DNA
<213> Homo sapiens

<400> 1311
gaattcgcgg ccgcgtcgac acggcttgat aagtatctca ggatattctg caggaatcag 60
ttctgtttct acaaagtcct gtattcccat tcagcatgat atggctgaat atgtgtgtgc 120
tgctcgag 128

<210> 1312
<211> 368
<212> DNA
<213> Homo sapiens

<400> 1312
gaattcgcgg ccgcgtcgac agcaaacata cagtgaccct ggcttttata tttgtctata 60
tagttaactt tattggaaat ctttattttt tcctccagat tagagtctag tttgttttta 120
tttcatcttt aaagacaccc tttagtgctt cctgtatagc aggcttagta gtaacaaact 180
cttcagcatt tgtttatctg ggattaactc catttctctt tcattttgaa ggactgtttt 240
accagctaga gaattctcag atgatagttt ttttctttca gcaatttata tatgtcatcc 300
atctgtcttc aggccttcaa ttgatttcta aggagatatc agctcctaat attaatgagg 360
atctcgag 368

<210> 1313
<211> 181
<212> DNA
<213> Homo sapiens

<400> 1313
gaattcgcgg ccgcgtcgac ttgccttatc gcttgtaagg cagaaaagca gagtgaaaag 60
aatactaatt tcgggaattc agccttttgt accctggctc tgccagttct ggctgtgtga 120
ccctgggcaa gtttcctttg cacctcggtt tccccactgt aatagtagtg tgtccctcga 180
g 181

<210> 1314
<211> 164
<212> DNA
<213> Homo sapiens

<400> 1314
gaattcgcgg ccgcgtcgac gacggcttgg agaaaggtta gaattttttt ttttccttaa 60
ggtttgaaag tcttaaccat tttggtggaa aagtttgggt taatcccacg cagagacttt 120
taaacatggt cacacattcg tatttaagaa aggcggttct cgag 164

<210> 1315
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1315
gaattcgcgg ccgcgtcgac gcttagattt atctattagg acttatcatg aaattgttag 60
aaacatccag agaagaaaat aggaatgaag agcattatgt tcctgtttta tcaactcaac 120
tcgag 125

<210> 1316
<211> 167
<212> DNA
<213> Homo sapiens

<400> 1316
gaattcgcgg ccgcgtcgac gttactggta agatgcaatt tcttctcctg gccatggtgg 60
aaaggaggaa gaaggctatt gttctgttgc ttcattggat atctgcttgg gtaatagttt 120
tactgatttg gcttaggtct ctgagcaaaa agggaattgc actcgag 167

<210> 1317
<211> 470
<212> DNA
<213> Homo sapiens

<400> 1317
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tttcttcaac aagctaagca aagccaggta tatataattt tcaagaacaa aagaataagc 120
aggacaagga aatgaaacta ctgaccaccc ttcaattttg ttccactatt taactgatga 180
gttattgcac attgtaaaaa aaaaaaaaaa tgcctattac aataccacac taccctgtta 240
cagatcacaa aataagggag aaggtatttc cattttttta acaaaatatc aaactgttac 300
tcttaaacca gataaagagc aatacatgtg cgactaatat tcataaatta acactctgaa 360
gctaactacc tgctattcaa aggaaaagca tttagaaaat actgaaaaac aggtaaatct 420
ctacatcacc catatgggac agaaatgcaa agaacactac gttcctcgag 470

<210> 1318
<211> 981
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (196)

<220>
<221> unsure
<222> (228)

<220>
<221> unsure
<222> (595)

<220>
<221> unsure
<222> (604)

<220>
<221> unsure
<222> (615)

<400> 1318
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tgggatagaa gcaaacacaa attccttctg tagaaagaca cctttatcct agccctgaaa 180
taatactctc aaatantttt tctagggcag taagtaccag tcactaanaa taaccatgtg 240
tgcaaagaaa caaattactc tgaacaagaa ttagtagaaa caacaatgaa gtgaaatata 300
cctacaaaga ctttttatat tagaattata agacaactat acttattgtg tttaaagaca 360
taaaaggctg aaaacctctg caggaaacta cacaaagatt tgaaaaagtg tcaaaagaat 420
ttctaaaatg gaaagatata atatagaaat ttaaaaactt agtggatggg tggtttaact 480
aaaaaattgg ttagaatata ttatccagca tgtagcatag gggttaaga ggttaaacac 540

ggaagaaaga ttatgaaaaa tggagaatgg agagaaaaga tctaacgtag ttttnactgg 600
agtnatagag tgagnatagg gcaaacatag aacagaggtg atatttgaag aaataatgag 660
tgataatatt ctagaactga ttaaaaacac tagcctgcag tttcaagaag cctaacaaat 720
cccaagcagg ataaataaaa tctctaatct agatacatca aagacaaact tcagaccaga 780
gacaaagaga aaaatcataa agatagctag agaaacatta gaataccttc aaagatacaa 840
tagttagatt gacagttgac ttctcaacaa cagtggaagc cagtagagtg ctatcttgaa 900
tgttgatgaa ggacaataac tgcctaccta ggattctaaa cccagtgaaa atatatgtca 960
gaatgagggc taaaactcga g 981

<210> 1319
<211> 497
<212> DNA
<213> Homo sapiens

<400> 1319
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tctcactatg ttacccaggc tggtctcaaa ctcccggact caagcaatcc tcctgccttg 120
gcttcccaaa atgttggcgt tataggcatg agccactgca gcttggcaag ggaaaccttt 180
tatctagaaa ctgccgtgct aagataagcc atataagtaa gaattttttt tgagaatata 240
agaattatat ctaattactt gaatgtgctg aatttcagta acttttggtt ctgcacaatc 300
tgtcaaagat aacagaatat attaggccca tagcacaaga gagaatatgc ttccaattat 360
tttaatgaaa tggtttttaa atgagtgaat aaaatatcat aaattgtcag aaaaagtaac 420
ctaatgaaat gaacaaatac ctgaactcct aaaaaggcca tcacgatgga gttgatggtg 480
cccgggatgc cctcgag 497

<210> 1320
<211> 189
<212> DNA
<213> Homo sapiens

<400> 1320
gaattcgcgg ccgcgtcgac gagactgtgg ttgaatgaca gcgccttttc tgtttgtaca 60
tataaagcct gattggactt ttgcagatcc tggttttcta attattttg ctctacctct 120
ttgtggctta ccttgcttag ttttagaatc atcatgtaca gggattttac tttcttcttt 180
tttctcgag 189

<210> 1321
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1321
gaattcgcgg ccgcgtcgac tcgattgaat tctagacctg cctcgaggag agaactggga 60
acgtaatctt tgagccgaag cttgcaggat caattatact ttatctgata gagaaagtgg 120
gacaagtcat gtggagagct ggttctttag gaaaattata attggtggca aatgtcaact 180
gtgtctggag atagggctac tcgag 205

<210> 1322
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1322
gaattcgcgg ccgcgtcgac ctgtgcagtg agtgaagaca gagaaaagtt ccaagagaaa 60
ctccttctgg ctagagaact agaaaagatg atgaatggga gagggacaat ggggaggggt 120
ggatatctgg taatttttct tctctctcag ctctgcctca aagcaagccc caatcctgag 180
tctgcacacc tcgag 195

<210> 1323
<211> 475

<212> DNA
<213> Homo sapiens

<400> 1323
gaattcgcgg ccgcgtcgac tggggctctc aaacacatca aagcctgcta agtctccaat 60
tctccctgtg aagcaagaca cccctgtgtt cagtggcatt tggcaaggat cctgaggtca 120
cagcctggtt ttgtgatgtg gtgataatga ctctaagtag tgaacgccaa agattttata 180
ttctgcctgc aaatcatgat gggttctaat gacacagcat ataaaagttc tcaagtattg 240
ctttgccacc tccactgctc attaacttaa cttggtagga gtttcttgat ggaagacaat 300
caaacatttt tatgaatgag tcacaaatac tatcacactg attctttggc aaatataatt 360
cttattgttt tataagaaaa cagtcatcac ctgcaataga ctgatgtttg tgctctcctc 420
acccccaacc aaatttatat gttgaaatgt tgaaattcta acccctaggc tcgag 475

<210> 1324
<211> 167
<212> DNA
<213> Homo sapiens

<400> 1324
gaattcgcgg ccgcgtcgac aaaccgtcga ttgaattcct gctgattccg tctgaacttc 60
accaaggtga tccagctgct cttgcatctg gttcctggta acagttacat cgtattctaa 120
cttatcatat tctctccatg ctcgttccaa ttcggcagtg gctcgag 167

<210> 1325
<211> 786
<212> DNA
<213> Homo sapiens

<400> 1325
gaattcgcgg ccgcgtcgac cgctgagacg gtttggcggt gagtcctggg ccagggggag 60
ctgaaaggcc cgcaacccgg gaaacgtcaa aacaaacaga aggacttggg attccggagc 120
agtcgcccct atcgctgctc ctgcagttgc ggacgccacc gaccccgccg ccggaggact 180
gggcactgaa aggcctctag gcctaggcgc ggcccgcgga gccagacgtg ttgctgccgt 240
gagtaaaacg agcgccctct ccgcactcgt ttacaaatta aaatggagga aatttcgttg 300
gccaacctgg atactaacaa gctagaggcc atcgctcagg agatttacgt agacctgata 360
gaggattctt gtttgggatt ctgctttgag gtgcaccggg cagtcaagtg tggctacttc 420
tacctggagt tcgcagagac tggtagcgtg aaggattttg gcattcagcc agtggaagac 480
aaaggagcgt gccgcctccc gctttgctcc cttcccggag aacctgggaa tgggcctgat 540
cagcagctcc agcgctcacc tccggaattc cagtagctgc aaaatgagag tctgaaagtg 600
gccaggacaa taacatagac tggtcctgtg gcttcgagga gtaagctaag tagaaaaaag 660
tagaaaaatc agacaaaagt tttaattccc ccttgaagat cctagcattt aaaaacccaa 720
agtggataat ttaggaatcc ttttttaaa gtgtattacc tggagcaagc tcagaagccc 780
ctcgag 786

<210> 1326
<211> 339
<212> DNA
<213> Homo sapiens

<400> 1326
gaattcgcgg ccgcgtcgac ctatcctagg taatttcagg tactttctct tatgcaatta 60
atttattaa ctgatttctg gtctatctcc agagataaaa taccattcct tcacaactgt 120
attgtctgga agccccatga gatggtaatt ataggccttc tactagccag cagttctctc 180
tggatactgg catcagcagg tctccttttt cttgtgctgc ttggacaggt acctaccgct 240
ggcctcttca gtggccacaa tcctcagtcc tcacctgctg gtttggagac tcatgagcac 300
cccaggcagc tcaagctgaa taaatagctg caactcgag 339

<210> 1327
<211> 299
<212> DNA

<213> Homo sapiens

<400> 1327
gaattcgcgg ccgcgtcgac aataaccaaa atatagatat tgcaggctag agctgggcaa 60
ttattcaggg ggaggtgtgc tgttgtgctt gtttaaaacc aaagcaattc ccactgtccc 120
tgtgaaattt caaacctctc ccatataatt cagtgacatt aatctgaatg gcatcttttt 180
ggcttaatca tattttgcct tgtttctttg ttaactgttt gagtttgtat gagtttgatg 240
ggctttctcc aacaaatgat cctttcccat ctgtgatttt ctctcctgta gacctcgag 299

<210> 1328
<211> 294
<212> DNA
<213> Homo sapiens

<400> 1328
gaattcgcgg ccgcgtcgac aggtccccaa ttaattcata attagaatat ttcgtgtttt 60
tccagtataa cagttctata atctttgatt ataacctttg tgtaaattcc tataagtatt 120
gagtcaaagg agacacacat cttttcaggc attacatata aaataaatac taaactagac 180
tccaggaaag tggtatcaat tcacattccc aatagcactg tcccaatggg gctaatttat 240
ctccttttta atctcagcgt atttccagtt ataacatacc atctttacct cgag 294

<210> 1329
<211> 174
<212> DNA
<213> Homo sapiens

<400> 1329
gaattcgcgg ccgcgtcgac cactaccgta gttattttaa agatgattgc agggaggttt 60
ctgctgttcc tggtcctgtt ttctgctctt tcgcagggtg cagttttggc ctctggggct 120
gttcctgagg ctccgggtgc agatcttgct gcggtcgctg ttcctgggct cgag 174

<210> 1330
<211> 476
<212> DNA
<213> Homo sapiens

<400> 1330
gaattcgcgg ccgcgtcgac gggtgatgtg tgatcatgtc aatccaaaca gcagacacga 60
aagctcagag gaaataacgg caccccttggg ctctgatgta agactggctt tgggggaggc 120
cgtgcacgaa gaaaaggata ggaatatcac tcttctcctg aggggaacac ggacagacat 180
ggaagccaca tgaactgaag aaatccatca gagtaagagg aatgtcaggg gcaatacact 240
gaaaagggca ggtcaggcag agaattgtga aactttaatg ccaggctaag agggttcagc 300
ctctcctggg tttgatccag gaggcagaca gcaggacagc acctggtgat tttcaaacgg 360
gtaaactcct agtgttcagg aaaactcaat tccaatccca agtacagtcg gtaattttta 420
agcacatgct ataaaggcat agtttcagca agtattcaat tcaccaaaca ctcgag 476

<210> 1331
<211> 749
<212> DNA
<213> Homo sapiens

<400> 1331
gaatgctgca gcttgatctt gggttgaaag aatagaatgc agagctatca ctttatatcg 60
ttcagaataa aatcttctat catttgatag aagatcatac aactgctgaa tatgagcaag 120
tcctggtaaa aagatcaata ctgctccttc aatatttctg aattggggac ttttatctaa 180
gtatgcaaga agttccaaaa tgagatccag gttgatttta tgaggattca tgtatagaat 240
agcatgctga gtgcggctgc tgtacttttg gtaaaatgga tttaaatcag catgtgctcc 300
agtctgaact gggatgtatt cctgatattt ttttattccc cctgctttgc ttgtaacatt 360
aatggttact tcttcttcct cttccagaaa tttctgacaa tattctgagt ctttttccag 420
tacaaagcct gtttcttcta ttatatcttc aagatgaaaa acctcaacag gataacttct 480

tcctgaaatt ctgagaatgg ggcagtgtgt gaaatatgta gaaaattttt cgctgtccac 540
agtggcactc attagaatca agtgtagatc agaacgtttc tgtaaaattt ccttcaagat 600
aattagtagg aagtctgact ggacacttct ttcatgaacc tcatctacaa taacatgaga 660
cacattactt agaagaccat cttcttgaag tttccttagc aaaacccctg ttgtacaata 720
gagtaacctg gtagattcac aagctcgag 749

<210> 1332
<211> 387
<212> DNA
<213> Homo sapiens

<400> 1332
gaattcgcgg ccgcgtcgac ttacaataga aaacactaat tacagtaatt aatgagagta 60
tggttaaata aatcatagta aatccttgta ttggaatact attcagcaaa ttaaagggct 120
atgtctacat aataaaatga tacagaaaaa tgtccaggat atcgtaatag aaaaaaatct 180
gcacacaaga gattttaagt caattttaaa caatattaag tctgatttta tttatgcaca 240
aaaataaaag ccagagtggc atcaccaaaa tgggagaata gaaagctctg gattctcctt 300
cctccaacag gcagtgctgc aataaacatc cctgtacact ccccatgtgt atatacacaa 360
atatttctct aagatagttc cctcgag 387

<210> 1333
<211> 698
<212> DNA
<213> Homo sapiens

<400> 1333
gaattcgcgg ccgcgtcgac gttattttca tcttatatct ttcagtacac taattctctc 60
ttcagatgtg tctaacctgc tatttaaact cattcacttg agttaatttt acttactgat 120
tttctcagtt ctagaattta tatttgttta tttttagttt ccagttctct gccaaaaatc 180
tgtcttgtct tttatcccct tgaatgtggt aagtataatt atttcaaaag tctgtatctg 240
agaattccaa tatctagagg ctgtttgaac catctttcct ttttcttgat gttgtttgtg 300
tatctgtttc cagttgcttt tgattataag ccagacattg catttgcaaa ctagaaacaa 360
tttgtgacct tacatgatac cactttcttc caggaaggat ttacaattct gccagatgcc 420
taggggcact agcaatttag gaaccctcaa tctaatttta gggactgaca tgattcaaag 480
ctgatctgca gcctcagtga gagtatgtct actcctggtt aacccttgct cctatggtgt 540
agcccttcag ggtcttgact caaaatgagt tatgttcatc aggtgtcccc tccttagggg 600
ccatgggcac taatctctgc ccccattact cccactagcc tgtcaaaagg gctgcttagg 660
ttttagcagc ttcctgcaga actggctaat atctcgag 698

<210> 1334
<211> 569
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (53)

<400> 1334
gaattcgcgg ccgcgtcgan ctggtggatc atcttaggtc aggagttcga gancagcctg 60
gccaacatgg tgaaatccca tcactactaa aaatacaaaa aattagccag gtgtggtggt 120
gggcgcctgt aatcccagct actcgggagg ttgaggcagg agaatcgctt gaacccaaga 180
gatggaggtt gcagtgagcc gagattgagc cactgcactc cagcccgggc aacagagcaa 240
gatttgaatg aaataagctt ctacagtctg ctcatgacat tattggtctt tgagaaataa 300
gagttcatct agttacgctg aacttccaaa ggtggacacc attacattgt atattaaaat 360
acacacacac acacacacac acacacacac acacacacac acaaatttgt taatatcacc 420

acagccctct caacttagga gctggagttc ctacatagct gtacactctg aaggcatcct 480
gcctgtgcca gtacctggac tgaggcaccc ccgtaaagaa ggcctgctgc tctgacagca 540
tgtggactac atctgtaagc tgcctcgag 569

<210> 1335
<211> 571
<212> DNA
<213> Homo sapiens

<400> 1335
gaattcgcgg ccgcgtcgac gattgaattc tagacccttt cttcccccac cttcaaacct 60
tctccgccca cctgtctttc ccatgggcat taatggcggc tccatttact caggccagaa 120
ccagaagagc cagcttcact ctctcacccc ctctacacaa tctgactaga aatcctgttg 180
accctacctt caatctgtgt ctaggatgca acacctcaac atgtccacac ccccccttcat 240
ccctcacctg aacacctagg tctccctgcc ctccctaccc tcccagtcgc tgggtttccg 300
tacagcagcc acagggatcc tgtcgtttct gtgctccaaa ctgcacagcg gctcctcagt 360
ttacttgaaa taaaacgcca aagtccttac aatggctgca gagccggaca acccactggc 420
ctgcctagct gtctgacctg ctctcccctt cctctgttag ctgcattggc ctctgcaccg 480
gctgttgtct atttgtaaaa cacccccttcc aggcatttcc aggactgaac ccttcagctc 540
tttcaaatct ttcctcccaa gtcacctcga g 571

<210> 1336
<211> 370
<212> DNA
<213> Homo sapiens

<400> 1336
gaattcgcgg ccgcgtcgac gatccatctg tcttccgcac aggacaaaca ggatggttca 60
atggggatgt ggtgggaatc cccaatgtaa gagttaaaga ggaaagaaac acaaaatgtg 120
gcttaacagt taaagacaga tttattgtag agaaaataaa cctgagaggg gcttctggcc 180
gatttcagtc aggagcactt tctcttacag actaagagta tatattggtt ttagggtgaa 240
ggggcttatt acaagcttgg aatgtttctt tgtgggggag aagttttacg gtggagttaa 300
aatgtctctg ggcagagggg aggttatctt ggggctgaca tctttccggc cagaagaggt 360
ttatctcgag 370

<210> 1337
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (27)

<220>
<221> unsure
<222> (320)

<400> 1337
gaattcgcgg ccgcgtcgac gacctanaaa gtgaaagtag acagatttgg gtagtgcatg 60
caggctaatt aatgatccca ggtgggctgg agtgttctgg ttacattttc catgggtcca 120
gccctagagc agagaccatg ggcatcagcc tgccccttcc cattatgtgg ctcaagcacc 180
accacgtgcc aaagggcggg aacattagat ttccccaccg ctgtaacatc tgtaaattcc 240
acagtccata gaatcaaaat ggaagagaac ctcacgtttc tgattgccag tcagaaggaa 300
tttatttttg aaacccaatn ctcgag 326

<210> 1338
<211> 617
<212> DNA
<213> Homo sapiens

<400> 1338
gaattcggcc aaagaggcct aaaaggcata gacaacaaaa gaaattttat tgagaggaaa 60
acacaagtcc ttaaactgca aagatgtttg ccaggatgtc tgatctccat gttctgctgt 120
taatggctct ggtgggaaag acagcctgtg ggttctccct gatgtcttta ttggaaagcc 180
tggacccaga ctggacccct gaccagtatg attacagcta cgaggattat aatcaggaag 240
agaacaccag tagcacactt acccacgctg agaatcctga ctggtactac actgaggacc 300
aagctgatcc atgccagccc aacccctgtg aacacggtgg ggactgcctc gtccatggga 360
gcaccttcac atgcagctgc ctggctcctt tctctgggaa taagtgtcag aaagtgcaaa 420
atacgtgcaa ggacaaccca tgtggccggg gccaatgtct cattacccag agtcctccct 480
actaccgctg tgtctgtaaa cacccttaca caggtcccag ctgctcccaa gtggttcctg 540
tatgcaggcc aaacccctgc cagaatgggg ctacctgctc ccggcataag cggagatcca 600
agttcacctg tctcgag 617

<210> 1339
<211> 792
<212> DNA
<213> Homo sapiens

<400> 1339
gagagtctca ctttgtcacc caggctgcag tacagtggcg cgatctcggc tcactgcagc 60
cttaacttcc cgggctcaag cagtcctccc agccctaagt aaccactaat ctattttctg 120
tttctctctc ttaatttttt atattttatt tgtccctgaa gtttctgctg gttccccagc 180
tatgcttctc tccaccccag ggtcaactct ggggaggaga gattcaagga ggtacctgtc 240
tgctgcagaa cagtcccccg acctgaccca ggggagttca tccagcagca gagcagacta 300
acgaggcctc tggggcctgc cattgccagc tactctgtcc acttggtttc tctcatcaca 360
tatggcacat tcacacattt gatggagacc attcaagggc ctgagctgct gtgaggtcat 420
agcctctgcc gtggcagcct ggctgcagct ctagaatagg atgaagcagc tgtcatgcgc 480
tagaagaacc agacttggaa gcagcagagc agtttgcctc ccaggtccac agatgcttgc 540
ttgaatgagt gtctgagctt caggttcttt tatctgtaaa atggtgataa tcaactttac 600
ctttcatggt ggttgtcaaa attaaggtaa cagaagggaa aacacctggt gttcaataaa 660
tgttaacttg aagggtgttc tttgttttgt ttttctgtga ttatgggaat aaattctgat 720
tctcggattt ccaggtaaag atggaggatt gaacacctac ttttgcttcc tctgaaaacc 780
ccatttctcg ag 792

<210> 1340
<211> 588
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (44)

<400> 1340
gaattcgcgg ccgcgtcgac ttcagtttaa gaaatgtata gtcncaatct aggaaacatc 60
cctgtggagg ttcagggagg tggttgggtc tgagggtctg ggtttctgag ggtccagagg 120
actgatggaa ctcagagcgt cctgagtgtg ggcaggtggt ttttaggctt tgggagtggg 180
taagtcctca ggagagggag tggtgtgaga agaggagaga cggggatggc cgagattcag 240
cctgcaagag ctctgcttgg aaggaaaagg agccagcaga aaggactgga aagagtagtt 300
ggagggggcag gagaagaatc aaggtcatgt gccaccctgg aagccaaggg aagaccatcc 360
aggcatggtg gggacagctt ggtcagatgc cactgagcct caaggaagct ggagaccgag 420
gattagtgct ggtgacatgg aggttttcag cctttcatgg gcaaggcagg agcaggtaag 480
gagggaaagt caactgagga gtagagaagt gtgtgatgac tcctggaaga agcctgggac 540
tgcaggggga agacaggagt ggctgaggga gaagagggat aactcgag 588

<210> 1341
<211> 628
<212> DNA
<213> Homo sapiens

<400> 1341
gaaattcgcg gccgcgtcga ccgcggccgc gtcgacttga attctagacc tgcctcattt 60
tcctatgttg tgttaaggct ggctttgcat ggtgacgaag gacgcgtctc cctcctgtgt 120
gtaacaggcg gttctactgt acactgtatc aaagtttagc tgcagtgagc tatttgtcat 180
aaattccagt tgccgtgcaa gtctttgcaa gcctgggtct cgtcattccc gacacacagc 240
cgtcaggctc gcagcccggg cagcggtgga gctcacccag caccagccag tgcggcttct 300
gccgctgcga ggagggcggc gtggggaatg aggtcactat gtcaggagct cgctctcagc 360
aggagcctct cctgcgctta caacacaact ccaatcgcac cgagaagtgg gattcatggg 420
atttgggggg tggctggttc ctcccctgtt tcttaaaaat gtctacggct aagatcagca 480
aggtgaaaat gaatcacgta tctgcataaa aatgtccttt tcattgcact acgggtgcca 540
cgctcattgt gaaccccagg ctgaatcact cacgtgtaca cctgcggaca tgcatttaca 600
caccgacaca cacacccact aactcgag 628

<210> 1342
<211> 280
<212> DNA
<213> Rattus sp.

<400> 1342
gaattcggcc aaagaggcct accattaccg ccaagagccg ccgagagccc tagcggacgc 60
gcactggacg ctgaccggcc gcaccatgag actcctcccc cgcctgctgc tgcttttcct 120
gctggccttc cccgccgccg tgctgctacg aggcggcccc ggagggtcat tagctgtggc 180
tcaagatctt acagaagatg aagaaaccgt agaagatcca ataatcgagg atgaggatga 240
tgaggctgaa gtagaagaag acgaacccaa cagactcgag 280

<210> 1343
<211> 569
<212> DNA
<213> Rattus sp.

<400> 1343
gaattcggcc aaagaggcct aagaccagcc tcgaatcgcc cagctcccca gcttcgtcga 60
ctcacagccc gcctgacccc cttcgacctc ttcgcccaca tctcccaaca ctccaacttc 120
caacaacaat ggcaaagctc ggattatgcg ctggattggg ggtctttcta atatgctcaa 180
gcgtcatctt ggtcctcttc gcccagctct ctcaagccac gggcggagca acggttctgc 240
ggcatcttca aatgtccacc attgacacta caggcctagg cagccagctg gcctcgtctg 300
gcgtcgatac ctcgtccctc tacggctcag gttcccgatc gggcgacaac acgggtctcc 360
gccagtacta cagctacggc ctctggaacg cctgcgaggc ccccaccaag tcgggcacca 420
gcgacgtcta ctgccagggc gccaagtttg gccgcaaatt cgaaccctac aacgccatcc 480
tcgctgatgc ccatcgagt gcccaaaccg ccatcgccaa ctcgcttggc aacaccaact 540
ttaccaagaa caaggcaggc accctcgag 569

<210> 1344
<211> 547
<212> DNA
<213> Rattus sp.

<400> 1344
gaattcggcc aaagaggcct agtcagtact tcaccccagg aacaaactcc tttgcattgg 60
gattcagatt gctcttcacc acaagatctt ccagagaaga gccatcactg ataacaaggt 120
cattaaactg gtcttggatt tggtccatag tttgtgggag atctcgggct ggaataaacc 180
attcatgttc ttcttcctct tccagcattt cttggaaaca gcgttcaata aattcttctt 240
cccacaactc ctcttctatt tgtctgttga attcctcttc attttccatc cacatgtact 300
ctgcaaatgg attatcctct tcatgagaat gaccgttaat aatcacatcg tcattgatga 360
tgcttgggct agtactgctg cgacttggat ctttcatggt tggtgttcgt tgtcgttttt 420
aacccagtgc acggcagcgg ggacggtagc caacgaatcc tgtcggcctc cgcggatctc 480
cacaggcagc gccgctcccc cgctcgacgt gcgctttgcc cgccgcctcc cttctccctg 540
cctcgag 547

<210> 1345

<211> 389
<212> DNA
<213> Rattus sp.

<400> 1345
gaattcggcc aaagaggcct aggcgattgc ggggaccgtg ttgcccgcat tccccgtcgc 60
ttcctgcggc cgaaaggcca gactgggtcg ggggaatccg gcctaggcgt ccgcgtcgcc 120
cggtgcgagc gggatggctg cggaagaaga ggacgaagtg gaatgggtgg tggagagcat 180
cgctgggttc ctgaggggcc cggattggtc tatacctatc ttagactttg tggagcagaa 240
atgcgaagtt tttgatgatg aagaagaaag caagttgacc tatacagaaa tccatcaaga 300
gtacaaagag ctggttgaaa agctgttaga aagttacctc aaagaaattg gaattaatga 360
agatcagttt caagaagcac gcactcgag 389

<210> 1346
<211> 581
<212> DNA
<213> Rattus sp.

<400> 1346
gaattcggcc aaagaggcct acgaggggaa ccgttgggcc cgagcgaacc gtaccgagcg 60
cgggcatcgc agagcgcgag tgcggagctc ggagcgcagc acgatgggag gggagcagga 120
ggaggagcgc ttcgacggca tgctgctggc catggcgcag cagcacgagg gcggcgtgca 180
ggagcttgtg aacaccttct tcagcttcct tcgacgcaaa acagactttt tcattggagg 240
agaagagggg atggcagaga agctcatcac acagactttt aaccaccaca accagctggc 300
acagaaggcc aggagagaga agcgagctcg gcaggagaca gagcgtcggg agaaggcaga 360
gcgggcagcc aggctggcca aggaggccaa ggcagagact cccgggccac agatcaagga 420
actgactgat gaggaggcag agagactgca gctggagatt gaccagaaaa aggatgcaga 480
gaaccatgag gtgcagctta agaacggcag tcttgactct ccagggaagc aggatgctga 540
ggaagaggaa gacgaggaag acgagaagga cgccgctcga g 581

<210> 1347
<211> 119
<212> DNA
<213> Rattus sp.

<400> 1347
ggatgaagct gctgccggac actgggcacc agaatcgccc acccgtggat gggggcagcc 60
agatgcccac agtgctggac acccgctgtg ccccgccagg gacctccccc caactcgag 119

<210> 1348
<211> 443
<212> DNA
<213> Rattus sp.

<400> 1348
gaattcggcc aaagaggcct acgcactgga cgctgaccgg ccgcaccatg agactcctcc 60
cccgcctgct gctgcttttc ctgctggcct tccccgccgc cgtgctgcta cgaggcggcc 120
ccggagggtc attagctgtg gctcaagatc ttacagaaga tgaagaaacc gtagaagatc 180
caataatcga ggatgaggat gatgaggctg aagtagaaga agacgaaccc acagacttgg 240
cagaagagaa agaagaagaa gaagatgtgt ctagtgaacc agaagcttca ccgagtgcag 300
acacaaccat tctatttgta aaaggagaag attttccagc aaacaacatt gtgaagttcc 360
tggttggctt tacaaacaag ggggacagaag attttattgt tgagtcacta gatgcctcct 420
tccgttatcc tcaggatctc gag 443

<210> 1349
<211> 395
<212> DNA
<213> Rattus sp.

<400> 1349

gaattcggcc aaagaggcct agggtgcttg ctctcaaagt gctgcttgaa ggtcttgggg 60
tcaggcattt gtgtcctaca gactgtgcag gtatatatta aggcagcttt ggcagcagcc 120
ttttggtcat gtccttgttt cttcttttgt ccagcctgct ttttggcatt tttctgctga 180
gactgaatct tctgctgtcc acgagccata tccgggccgg gacggagtgg cgtccgagag 240
acggcgcagc gcgagaagag ctgagcagga cgagcaggga aggaagggtc gagccccgca 300
ccgcttgggg cctccgccac ccgcagagga aggaccgagc agagccggga gcacaacagc 360
ccgcgcctcg cacacccgcc gcagcgcgcg cccgg 395

<210> 1350
<211> 161
<212> DNA
<213> Rattus sp.

<400> 1350
gaattcggcc aaagaggcct acgagacttc ccagagcaat tgataaagtg ttgtgggttt 60
cctttttct gttgccaaaa gaaaactgct tttccactaa tttgttcctt tcaagcattt 120
taaatatgac aatatttaat attaaatgtg tggtttggag g 161

<210> 1351
<211> 363
<212> DNA
<213> Rattus sp.

<400> 1351
gaattcggcc aaagaggcct agttttctac agccaggttc cccgccctcc tccttcccca 60
agccgtcccg agcaacacac agtcatacac atgggtagta ctgaagccct gacacacgcc 120
ccaaggaaag tgtacgacac acgggatgat gaccggacag caggcgttca tggagattgt 180
gacgacgaca aataccgccg ccggcctgct ctaggctggc tggcccagct gctcaggagc 240
cgggctgggt cccggaagcg gccactgact ctgctccagc gggcaggact gctgctcctg 300
ttggggctgc tgggcttcct ggcgctcctc gcccttatgt ctcgactcgg ccgtggactc 360
gag 363

<210> 1352
<211> 322
<212> DNA
<213> Rattus sp.

<400> 1352
gatgatcgcg accggagccc tcctgcgcgt cctcttgctc ctgctggctt tcggccacag 60
cacctatggg gctgagtgcg acccggcctg tgaccctcag catggattct gtgaggctga 120
caatgtctgc aggtgtgagc ctggctggga gggcccccctg tgtgagaagt gcgtaacctc 180
ccctggctgt gttaatggac tctgtgaaga accatggcag tgtgtctgca aggaaggctg 240
ggacgggaaa ttctgcgaaa tagatattcg ggcttgcacc tctacccct gcgccaacaa 300
tgggacttgc gtggacctcg ag 322

<210> 1353
<211> 357
<212> DNA
<213> Rattus sp.

<400> 1353
gaattcggcc aaagaggcct agccatgtcc tgttctccgc tcgtaccatt cttgtccctt 60
ttgcttctgc tgttcctacc cgaggttccc agagcagcca ctgcgtccct gccgcaagga 120
tcctccgagg gcgcagccac ctgcaaggcc cacgacctgt gcctcttcgg gccacgccgg 180
ttgctctctg caccacctgt caatgtcagc ctctattatg agtccctgtg tggagcttgt 240
cgctacttcc tcgtccgaaa tttgttccca acctggctga tggttatgga aatcatgaac 300
atcactctgg tgccctacgg gaacgcacag gagagaaatg tcagcggcac actcgag 357

<210> 1354
<211> 336

<212> DNA
<213> Rattus sp.

<400> 1354
gtaattctag gcttccgaca caaactaaaa aattctttag cccacttctt accgcaagga 60
acccccatct cactaattcc catactaatc atcatcgaaa ctatcagcct atttattcaa 120
ccgatagcac tagcagtacg actaacagca aacattacag caggccatct attaatgcat 180
ctaatcggag gagctaccct agtacttata gacatcagcc cacttcttac cgcaaggaac 240
ccccatctca ctaattccca tactaatcat catcgaaact atcagcctat ttattcaacc 300
gatagcacta gcagtacgac taacagcaaa ctcgag 336

<210> 1355
<211> 488
<212> DNA
<213> Rattus sp.

<400> 1355
gaattcggcc aaagaggcct accatgtctg gtttgtctgg cccactatcc tggcctggcc 60
ctctcctatc cgccttgctc tttctgttcc ttctcggccc cagctcggtc ctcggcatct 120
ccttccatct acccgtgaac tctcggaagt gtctccgcga ggagatccac aaagacttgc 180
tggttacggg cgcgtacgag atcaccgacc agtctggggg cgctggcggc ctgcgcaccc 240
acctcaagat cacagattct gctggccata ttctgtatgc caaagaggat gcaactaaag 300
ggaagtttgc ctttaccaca gaagactatg acatgtttga agtatgcttt gagagcaagg 360
gaacagggcg gatacctgac caactcgtga ttctagacat gaagcatgga gtagaggcga 420
aaaattatga agagatcgca aaagttgaga aactcaaacc actggaggtg gagctacggc 480
ggctcgag 488

<210> 1356
<211> 362
<212> DNA
<213> Rattus sp.

<400> 1356
gaaagaggcc tacgatgtcg ggcgcctccc gcggactgtt ctgggccgcc acctgcctcg 60
ccgcgctctg cctgtcggcc gcgcagagca acagcagcgc atctcccaac gtgactgacc 120
cgccgaccac gaccagcaaa gtggtcccga cgacgctcac caccaccaag ccgccagaaa 180
cctgtgagag cttcaacagc tgtgtttcct gtgtcaacgc caccttgact aataatatta 240
cctgcgtctg gctagattgc catgaagcaa ataagaccta ttgttcaagt gaattagtaa 300
gtaattgtac ccagaagacc agtactgact cctgttctgt aatacctacc accccactcg 360
ag 362

<210> 1357
<211> 372
<212> DNA
<213> Rattus sp.

<400> 1357
gaattcggcc aaagaggcct accttttccc gcgtcccgca gcatgcagtt ctcccgtgtg 60
ctggccgcgc tgtgcggtgt gctgctctgc gcctccggcc tcttcgctgc gtccggtgac 120
ttctgtgact ccagcctgtg cctgaatggt gggacctgct tgatgggcca agacaatgac 180
atctactgcc tctgccctga aggcttcaca ggccttgtgt gcaacgagac tgagaaagga 240
ccgtgttccc caaacccttg cttccacgat gccaaatgcc tggtgactga ggacacacag 300
cgaggggaca tcttcactga gtacatctgc cagtgccctg tgggctactc gggcatccac 360
tgtgaactcg ag 372

<210> 1358
<211> 131
<212> DNA
<213> Rattus sp.

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (20)..(21)

<400> 1358
gaatggcgnc cgtggtgagn ntggtcctgc tggtcctgct ggtcccattg gccctgctgg 60
tgcccgtggt cctgctggac cccaaggccc ccgtggtgac aagggtgaga caggcgaaca 120
aggatctcga g 131

<210> 1359
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1359
gaattcggcc aaagaggcct aatgacaact ttatttgctt ccatgaaagc atcttggaaa 60
ttgtataaac atttcttttt tgcagcattc tttttctctt tactatccga gactgcaggt 120
gtttcattgc tagatggagg tggaagggct tccggtcttg tttctgagag tgttggccct 180
aatatttcac tcccttactg tgcgctcgag 210

<210> 1360
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1360
gaattcggcc aaagaggcct aatatgtggt tgcacatccc tgtcatctgt atcagacctg 60
tgcttctcaa atatctgcta attttcattc cattgccatg tcagctctgc tatgtcagcc 120
ctcagtggat tattcagcag tctcttctct gcccccatat tcccctccca ccacagccag 180
actcgag 187

<210> 1361
<211> 241
<212> DNA
<213> Homo sapiens

<400> 1361
gaattcggcc aaagaggcct agtatatttc tgtgattagt cctgaacatc ccatgttgta 60
ctgtttacct ctctcactgg acttagaaat tctgaagaac agaaacaaaa agtttctct 120
ttctctgtat gttctttttt tgttgttatt attattgact tggtatatct tctttcagat 180
gtattttctt ttattctcaa cacaaagtaa ttttaacatg atctttctgg gccatctcga 240
g 241

<210> 1362
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1362
gaattcggcc aaagaggcct aggccaagaa aaaagaaatt ggcattctct agcaaagaga 60
ttagactttt aaataactct tataaaacag gttggcgatc atttcccaag attggtttcc 120
cttgagtttt tgctaaaaca aatcttagta gttttgcccg tttaaaacaa ctcacaatcg 180
taaatgctac tattcctaag atatctcgag 210

<210> 1363
<211> 343

<212> DNA
<213> Homo sapiens

<400> 1363
gaattcggcc aaagaggcct aagatattgt catgttcatt cagaattata cccagtcatt 60
ctccctgctt ttagcaacca atatttaat aatgtataat atttgtcca ctgaatgtgc 120
cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttcactgt 180
caataatgtt gcaatacata tctttttgag agatagggtt ttaaattttc tttattttga 240
aataagttct aggttagagc cccaggatgg gattagttgg tggaaaatta agaatcctaa 300
tgcactgaag actcctattg aaaccaagag caagatactc gag 343

<210> 1364
<211> 241
<212> DNA
<213> Homo sapiens

<400> 1364
gaattcggcc aaagaggcct aaagacacat ctgataaata gttgttcttt gtgtatgtat 60
gtgtacaagt atttgccagt agacagctgc catatttatt cataaatgca attaattgag 120
atttagtatc taacctcaaa atcagtatat gactttacct gccaagatgc taaagttgtt 180
ttccgtcctg gaaatttaca tgtctgtttt ccttaacaca gttccaaagg atagcctcga 240
g 241

<210> 1365
<211> 268
<212> DNA
<213> Homo sapiens

<400> 1365
gaattcggcc aaagaggcct aagacctgcc tcactggggt ggcctgggag ggaatgaatc 60
aggtgctggg caggcccttc catggaaacc tatgggcact caggtgaatt ccgagagcat 120
cgttcagcat ggagagaatt cacagggccg gcgaggatgg cagggatggc cccettggat 180
gactttactt ccacggatgc tgccctgtca gggctcaccc aatgctttaa aaatcaacgt 240
gccgattgaa ttctagacct gcctcgag 268

<210> 1366
<211> 482
<212> DNA
<213> Homo sapiens

<400> 1366
gaattcggcc aaagaggcct aaaaagactc cgtcgttcgg ccggacacct gaagtcaaga 60
cacaaaagag gacggtcgtt tcattgattt gggaagtggt cctacctgtg attagggagg 120
ggtacgtctc ccccaaactg atcatcgtta gggtgttaaa cacagacgag gaaacacacg 180
tttttaaagt tcatgtacgt tcttgtacac agaggtaaag atttgaaaac ctgtgccttg 240
tgggttggac tttgaagctg gccccgccga cggccaccgc acagccccag gggtgtactt 300
gcaagtcgtt gctccctggg aacattgtcc tttccccacg gctttaatca tgaaaaccag 360
gttggggttt ttttttaat attgtgaaat gtacaccatg aaatgaaagg tttatcctgt 420
gccagaaacc aaggtttatc atgctcctag gaactttttt cttacaccgc ctaccgctcg 480
ag 482

<210> 1367
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1367
gaattcggcc aaagaggcct agagttacta agaacataaa ctgcaaactt gcctgcacct 60
caagaacaaa tactttattt aagtgtcttt attaaatact caatacaagt gtctgagcta 120
aaggaacctt agagatcact tactctaatc cttttatcaa caaagaactt gaagtttgga 180

gagattatct aactcatcca aagtcacaga cttagggttc caagataata tgaaagtgtc 240
ttatctcgag 250

<210> 1368
<211> 422
<212> DNA
<213> Homo sapiens

<400> 1368
gaattcggcc aaagaggcct atctaaatgt catttcaatc agaaaaccag ccatcaactg 60
tcaaaatggt aaaaacagtt atgtgtgttt tcaaagccag aagtgcaatc atgtggtgag 120
acttcagggt tttactgttg tccacagttc tgagtcccag gactggtttc cttactcggt 180
attctcccat ggaaaacttc atcggggaat tatagggtaa tattttcaag acttggaata 240
tgtctacagt tacctttcta aaaaacaaac aaaaaaatcc atttaaaagc atttttttaa 300
aaataatcat gccagggtag ccaaatagaa gcaactttgg ggtttttgca gagtcaagtc 360
ttataaattg tggaatattc cccttggtcc aggagatcat ttgactccca cacacactcg 420
ag 422

<210> 1369
<211> 314
<212> DNA
<213> Homo sapiens

<400> 1369
gaattcggcc aaagaggcct ataggcctct ttggccgagc ggagccggcg gagcctctgg 60
aatcacccgg gtcgctgttc ctgagcagct gcagagcatc gagggctgga gaggagcaca 120
tactgtccat ggagctggtg gtcaaggtgg acagggggcg gtggtgatgg cgcagtttga 180
cactgaatac cagcgcctag aggcctccta tagtgattca cccccagggg aggaggacct 240
gttggtgcac gtcgccgagg ggagcaagtc accttggcac catattgaaa accttgacct 300
cttcttctct cgag 314

<210> 1370
<211> 256
<212> DNA
<213> Homo sapiens

<400> 1370
gaattcggcc aaagaggcct agctttattt cagcagacgt aactagccac agtaaagcaa 60
agcatactgt gaaacacaaa ataacgaccc ttaggagtag gggcagaaaa atacatttat 120
aatgctattg ttttcttttct ttttgatttt tcctatgtac agtcatttcc aatataatac 180
tatttttaat gcagaggttt taattcactt aaaaaatgaa aacatagtag ataagtgtga 240
gagcagaagg ctcgag 256

<210> 1371
<211> 244
<212> DNA
<213> Homo sapiens

<400> 1371
gaattcggcc aaagaggcct accagttttg cctttcacgt ctatttgaca tagcaaccac 60
tctattgctg ggtaatttat gttctgttta aaacagaaat atttgtgcct gtagtctacc 120
attgctcaat ttgtaattta gctttgcaat gaaagcttct aacagttacg ccttgtcttg 180
gtacattgtt gtttcaggct tattagtttg cacatgtttt agtaatacaa ccaccgggct 240
cgag 244

<210> 1372
<211> 462
<212> DNA
<213> Homo sapiens

<400> 1372
gaattcggcc aaagaggcct aacctaaatc acctggaagg agagcattac tcaccaaaat 60
tgcaaaacaa gggtatcaag aatttgtgta atagccagtg acatgctgta gatttttgca 120
aactggatgt acttagcatg ttttctaatt ctgactggct tttgttaact tgataattct 180
tcatctacct taaaaagaaa aaaattacac atagtcattc ttgatgttat aaatagagaa 240
aaagtgtgtg tgagcaataa tgcataagct actgataact tgcttacagc agatagcaat 300
aaggtatttg gtggcattcg gcttgttttg taatagggat tttttttttg gttgaccact 360
cccccacact tccaaaatta aacagtgttt tcttagcatc ttgaatatct cctgcggtgt 420
atattaacat cttgatgaga cagatttcca ggcgttctcg ag 462

<210> 1373
<211> 431
<212> DNA
<213> Homo sapiens

<400> 1373
gaattcggcc aaagaggcct atcacacaca ctggggcctg tctgggttgg ggggctaggg 60
tagggatagc atcggaagag atacttaatg tggatgatgg gttgatgggt gcagcgaacc 120
accatggcac atgtatacct acgtagcaaa cctgcatgtt ctgcacatgt atccgagaac 180
ttagaacata ataataataa ttttttaaaa agtcttggaa ccaggtggat ggaggtttga 240
aggttggcat atttatttac tggaaagcaa gagtatgctc aaaattttga gatagttgta 300
ttgaaaataa actatcacag aaaacctatc tattaaaaaa aaaataggtg agtctccagg 360
atccatagct ccaagctcag gcaggaaaca gatataagga aagatttaaa gtacaaagga 420
ctttgctcga g 431

<210> 1374
<211> 246
<212> DNA
<213> Homo sapiens

<400> 1374
gaattcggcc aaagaggcct aaaataaata aatacaagcc tggctgattt tttgggcatt 60
tcttacagaa ttggataaac aaagtggtgc agagcccaaa actagaaagc cagaagactt 120
gggttaaatc tctcacatct ctattcccca atagtgtagt aactgtggat aaatcctttt 180
ggagtgctag gtctcctttc tcccacatct aaaatagtat ttattatgca actccgactc 240
ctcgag 246

<210> 1375
<211> 365
<212> DNA
<213> Homo sapiens

<400> 1375
gaattcggcc aaagaggcct acaggaagca ctgggctggg gaaatgggtt agaatggagg 60
gctggggcat cactaaaggc ctccttgcac ctggcagtaa ttcatgtgaa ttttgtcaac 120
atggtcgtgt gccttttttc cagccctgat cagctgctca agagctggca gcagtaggta 180
gataattgga cttaacaaag tgaaaaattg gtatcaccag gatacttggg aggcattacc 240
tctatgtgat gtctttgtat tctgaaaatg ctagttgaac ctcctttatt ttaaatagaa 300
aggataagag aatctgagac tgagaaagag gaaaatggaa gtttgcgtat gaagcatagc 360
tcgag 365

<210> 1376
<211> 257
<212> DNA
<213> Homo sapiens

<400> 1376
gaattcggcc aaagaggcct aatccattcg acatcacggt gatgatccgg gagaagaacc 60
ccgatggctt cctgtcggca gcggagatgc ccctttttcaa gctctacatg gtcatgtccg 120
cctgcttcct ggccgctggc atcttctggg tgtccatcct ctgcaggaac acgtacagcg 180

tcttcaagat ccactggctc atggcggcct tggccttcac caagagcatc tctctcctct 240
tccacagcat cctcgag 257

<210> 1377
<211> 511
<212> DNA
<213> Homo sapiens

<400> 1377
gaattcggcc aaagagccta agacgttctg tcatctgcca gcctgcatgg aacttcccca 60
caccctaccc cagcagagcc cacctgaagt tcctgttgtg agaattactc ttgtcaccaa 120
aggccattgt ctccagaagg ccactgtacc ccagcaggga gagtggagct tggacaccct 180
ctcccattga gtagtttctt ctttgggaat tgctgctttt ctgtctgaaa gcccagagag 240
ccaggtgtct gcggtgtgat ttcagctgtc agggggataa gggtgaagag aggagggacc 300
atggccatct tgctgcccct cccccacatc ctcaaacacc cagccagggg ggtgaatgtc 360
ccagagtgtt gggtgaccaa aagctgtgtc caaaagccag catgcagggg cctgagcacc 420
tgtggaagcc atgagctctg gcctctggat gctgagatct ggtggaagaa actgaactta 480
caaccaggca aataacactt caaagctcga g 511

<210> 1378
<211> 223
<212> DNA
<213> Homo sapiens

<400> 1378
gaattcggcc aaagaggcct acaccaacat aacttcaaat tcaattttag tttcacaatt 60
ttcacattac tcaaaatatg aaattggaag cttaataggc aagtctggtt tgggggatgg 120
agtagagaag tcaaagggat tatgtgatgg agatgagttt tatgccaaga taaggcttga 180
tataggtgtt gaaaggtgac aatttgacca ttgattcctc gag 223

<210> 1379
<211> 369
<212> DNA
<213> Homo sapiens

<400> 1379
gaattcggcc aaagaggcct agctgctgga ggctctgcgc caggcagtgc agcggaggcg 60
gcagcgcagg ccccactgat ggccggggcc cctgccaccc ctaactctca ttcattcccct 120
ggctgctgag ttgcaggtgg gaactgtcat cacgcagtgc ttcagagcct cgggctcagg 180
tggcactgtc ccagggtcca ggctgagggc tgggagctcc cttgcgcctc agcagtttgc 240
agtggggtaa ggaggccaag cccatttgtg taatcaccca aaaccccccg gcctgtgcct 300
gttttccctt ctgcgctacc ttgagtagtt ggagcacttg atacatcaca gactcatgcc 360
aaactcgag 369

<210> 1380
<211> 357
<212> DNA
<213> Homo sapiens

<400> 1380
gaattcggcc aaagaggcct atgcagtggc tcacaccttt atctcagcct cccaaagtac 60
tgggattaca gccaccatgc ccagactctt tagataattc taaattcttt agatacctgt 120
tgttgcaaat acatacctag aagtgaatct tgaggaatct tcagatatgt gacatcaagg 180
tttgctagct caatgtattt tgaaacctta atttaaccaa tatttcttga ggggccctta 240
catgccaggc cctgttgctg gcctggagaa aagcagtgaa caaaacagat gagaccatgt 300
tatcatggaa ttttctggac aggacaaaca gacaataaac aaacatatgt gctcgag 357

<210> 1381
<211> 349
<212> DNA

<213> Homo sapiens

<400> 1381
gaattcggcc aaagaggcct aagcaaatcc agtttgctga tgacatgcag gagttcacca 60
aattccccac caaaactggc cgaagatctt tgtctcgctc gatctcacag tcctccactg 120
acagctacag ttcagctgca tcctacacag atagctctga tgatgaggtt tctccccgag 180
agaagcagca aaccaactcc aagggcagca gcaatttctg tgtgaagaac atcaagcagg 240
cagaatttgg acgccgggag attgagattg cagagcaaga catgtctgct ctgatttcac 300
tcaggaaacg tgctcagggg gagaagccct tggctggtgc aacctcgag 349

<210> 1382
<211> 376
<212> DNA
<213> Homo sapiens

<400> 1382
gaattcggcc aaagaggcct acggaggttg cagtgagcca agatcaggcc actgcactcc 60
agcctggatg acgggatgag actctgtctc aaaaaaacga aacaaaaatt ttttaagaga 120
aatgtcattt gtttttgttt ttgagacagg gtctcactct gttgccctca ctggagtgca 180
gtgggatcac ggctcactga agtctctacc taccggctca attgatcttc ccaccacagc 240
ctcccaaata gctgggagaa atgtcctgtt tttaatgaat ttgtcttcct ttttgtcttg 300
tttgttttaa tatctagtga tctaataaat ttggatgata tcttttgact atcaattatg 360
aaacctgtat ctcgag 376

<210> 1383
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1383
gaattcggcc aaagaggcct atcgattgaa ttctagaccc gcccgtcccg tcaaacaagt 60
ttcttcttag gctaagaaac gcagtatata cgagtatctc tatatatagt actaatggat 120
ttgatgtgct tccccttag cgtcccccctc cctctgctcc tcctccttca gcctggtctc 180
cccctactcg ag 192

<210> 1384
<211> 429
<212> DNA
<213> Homo sapiens

<400> 1384
gaattcggcc aaagaggcct aaaattgtca atatttaagt aactctttac tgagggcctc 60
ctctttgcca aattggggca ttcccatttc tgagtctcca agattccctg aatataactt 120
ctcttattgc ttatagcact ctgcattata gttactgatt tttttaaacc aatgtccctt 180
attagatcat aagctcaatg aggctgggat gcatgtcttt ttttttattt gttcattttt 240
cagtttcttc atgcctgttc taatcctcat gcatagtagc tgctcaatca tattagctga 300
gtgaatgaag agaggcgtga atgaatgaac aattgaatga attttcaaat gaaaaaagct 360
aaaaactaga taggtctctg acctttattt cctacacaca catttgtcaa ctacaacctg 420
atactcgag 429

<210> 1385
<211> 500
<212> DNA
<213> Homo sapiens

<400> 1385
gaattcggcc aaagaggcct aagaaggtgg aggttgcagt gagctgagat tgcgccactg 60
cactccagcc tgggtgaaag agtgcaactc cgtctccaaa aaaaaaaaca aacaagaaaa 120
aaccacaaca aactgttgtc tgttaactaa caaaatgagt atgaaacatg ttatatgttc 180
tgagttctct attaacatca acattgtgtt ccaaatttgg tgtttgccta ggaatggaca 240

ctcttcaaag taaacttttc caaggacaca tcctcaccct ctgactgaag aaacctcaaa 300
aagcagagat tcctttaaat gtagtactat gtttgaccat taatacatat agcaaataaa 360
aatgtgttcc atttgtgcct ctgaaatagg ctgtttttcc ctgaaggaga gaataaattg 420
ggatgggtta ggcacaacca ctgttattat tttaaagagc caggagatgg aagtgtagtt 480
atgaaaaatg taccctcgag 500

<210> 1386
<211> 266
<212> DNA
<213> Homo sapiens

<400> 1386
gaattcggcc aaagaggcct agtgtggtaa cgcggcgcgc gggagggtgg cttgaaaggg 60
tctttatgaa ccctagggaa aggccgtctg gtaggaactc catttcaaga ccttttaaag 120
tgagacctgc atatgttgaa agagtttcag agagtgaagc tgggttctta gaagctggaa 180
tgtcccagca gaatgtagaa atgcgaaaaa ttcggcacag tagtctaaac aggtgcaccc 240
accactagaa tttgaacata ctcgag 266

<210> 1387
<211> 144
<212> DNA
<213> Homo sapiens

<400> 1387
gaattcggcc aaagaggcct aaatggaatc atgataaaat gtctattaca taatatactg 60
ttctgttctt tgcttttctc gtttaaaaat atcactgtga aatgtcaatc caacatttta 120
tcacactata ggagccctct cgag 144

<210> 1388
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1388
gaattcggcc aaagaggcct accaaggtgc tgggattgcg ggcgtgagcc accgcgcccg 60
gccatgtttt ttgatattct gaataaaaag gatatagcag ttgggatagg cttgggttct 120
tgtcctttat gttcttgtcc tttcctcatg ataatcaaat cataattaga aataagatgc 180
taagaataca aaggtggctc tatgttaata ctgtattgat aggtcaaagg agaaggctcg 240
ag 242

<210> 1389
<211> 240
<212> DNA
<213> Homo sapiens

<400> 1389
gaattcggcc aaagaggcct agtcatttaa tttttaatct actgagaaga aaaaaataag 60
acaattgaag atacgctttt ttatgggatt tgccgcttaa gcctaatgta taaaactgga 120
acgttttatt gtttacttat tagcaccctg cttattccaa aaatagaatt tgatatggtt 180
tctaaaaata catacaataa agtaaaaaat atatatatag agagagaaag cgagctcgag 240

<210> 1390
<211> 342
<212> DNA
<213> Homo sapiens

<400> 1390
gaattcggcc aaagaggcct aaaattgaaa ccaagaaaac ttgtttttag aatatttcgt 60
ctgaataagt acagtagcca aggaatacaa acataattgc atgtttttaa aaattccttg 120
gaggctggaa ggggttaagc cagaagtgca atcaatagga attagggaat gttgtatatt 180

tatatatgta aacttttttt gtaagaaaag ttggtgacaa ctaaaccaac tttttccaaa 240
gtgcgctatg catattttta atgaaagatg acatgtattt gcacaaaaat tctcaggcac 300
attaaattat tgtaaactga agtaaaaccc aggtgtctcg ag 342

<210> 1391
<211> 365
<212> DNA
<213> Homo sapiens

<400> 1391
gaattcggcc aaagaggcct actcctagct ttactttag agttgggaga gaggtttggt 60
tttcattgtc atttaaatcc tgttgggttt cagcagagcc tgatctttag ggccctgggt 120
gcagctgttg tctggagatg cagatcactg tctgctgaaa agagccctcc tgctggggtt 180
agggatctcc tgattgaggc atggatccaa gggcttcttt ctttgttctc tgattccctg 240
aggctcttcc ttgtgtgtgt ggtgcgtgtg cactcgtgtg agcgcaccag gaactatgac 300
agcaatcaac gggtatgact gggggtgggg agcagaggca gcatggccag gaatctatac 360
tcgag 365

<210> 1392
<211> 167
<212> DNA
<213> Homo sapiens

<400> 1392
gaattcggcc aaagaggcct agctgacctt gatttcttgc tgatggagtg ttggacactc 60
aaagggcacg tgaagccctg tgcgtggctc acctcattgt atccttgcaa cgtcctggaa 120
aatgtgcaca acaatgtgac ttaattttca gacagggtga actcgag 167

<210> 1393
<211> 244
<212> DNA
<213> Homo sapiens

<400> 1393
gaattcggcc aaagaggcct acgagggttg ggggtcccag atacctcaac caccacccac 60
tgcaaggcgt cagaaggagg aggggaagtg gagctctgct ggggttggga gcagcagaca 120
caggaggcac cagcccggtg tgaggggggg tgtgtggtgg gcagggaaga ggtgcaggga 180
gttgaatttc ctgtggcttt cacttctctg ggctctgcct ctcccgttag ctcagagact 240
cgag 244

<210> 1394
<211> 290
<212> DNA
<213> Homo sapiens

<400> 1394
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tctttccctc ttcattacta ccttataaaa atacatccat tcttcaaata ttttcccaat 180
ctcccagtaa gaattagcct ctctcaatgc tggtgcagtg gctcattcct gtaatcccag 240
cactttggga agccgaggca ggcagattgc ttgaacccgt gagtctcgag 290

<210> 1395
<211> 286
<212> DNA
<213> Homo sapiens

<400> 1395
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tggatgcaaa gaaatttaca ggaccccttc taccctagag gtccaaggga attcaggggt 120

ggctgcaggg ccccacgaag ggacattgaa gacattcctt atgtgtagtg tccctggcag 180
gcatttacca ggccatgtgc tttaacgtta cggtaatact ttactttagg catccctcct 240
gttgctagca gccttttgac ctatctgcaa tgcagtgaga ctcgag 286

<210> 1396
<211> 266
<212> DNA
<213> Homo sapiens

<400> 1396
gaattcggcc aaagaggcta caaatgagtt gtctggatgt ctcaacctta acatggccaa 60
cacagaattc tttatctccc tatccaaccc tattgccatg cccaccaaac ttgaacccca 120
ttctttccct ctcgggaaat attaccacaa gctacccggt tgctccagcc aaaaacctac 180
aagtcggact ttattcttct cttgttgtct taccttgtgt tcagttcatc atccagtttt 240
gttggtttta cctccaaaat ctcgag 266

<210> 1397
<211> 568
<212> DNA
<213> Homo sapiens

<400> 1397
gaattcggcc aaagaggcct aattgaattc tagacctgct cttggctcta aatgtgggct 60
tttcttctcc agtcgccttt ttaactcatc tttcactgcc cagcccttca ggcatcagtg 120
cccctctcat gctctacaac ctttgcactt ggtgtcccct gtgcctggtt tccccttttcc 180
ctgcaaagcc acatggctga cctctccctt tcaggtttga ttggtcacct tctccgtgaa 240
gcctccctag ccattctgcc tctgattcca cccctctcac ctagccacct ttccattttt 300
tttttctcac cactcatcac ttgctaacta acataggtca aaggtggctt ttttctttgc 360
ttttaagatg caagatattt gatatgttta tgttgagaac taggagatga cagagaagga 420
aaagttgaaa acacaggcat gagaagagtt gatcgttttg cagggtcttg aagaagaagg 480
tgggagatga atcagagcat aagtggaagg taaggccaag gaagaacacc tcctctcctc 540
tcccctcccc tcccctcccc cgctcgag 568

<210> 1398
<211> 370
<212> DNA
<213> Homo sapiens

<400> 1398
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aggtaggggg cacagttagt tctaagtggg cttttatgct aaaagcctct ggggatatct 120
gttttgaaaa taaagatagg tgtcccctcc ttgctgtcat ctagcccaga cactctgctt 180
gctctctggc tgtctgctcc ctgggaaggc tttaggagga ccacccagga caggatgacc 240
atgctgccat ctgctctgga gctgggtctc agtgcagagg gacagtgact gtggatggtt 300
gcagtctctg gtgggaggtg aggatagaag tgataaagag ctaagaggag cttctgggtc 360
tcctctcgag 370

<210> 1399
<211> 347
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (39)

<220>
<221> unsure
<222> (116)

220>
<221> unsure
<222> (127)

<400> 1399
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tttcgacctc ttaaaaaact aaaccaagcc aaaccacaaa ggaaatctgc acaacntaag 120
agagacntga aagggatcgt gtaactacta gtttgtacta agttttttc aagaaaggga 180
aacaaattta tatatatata tatatatata tatgtgcaat atatttttac actgtgtgat 240
taacattagg gagtcctggg cacatcgaga tgctttactt ctttctttcg acctcttaaa 300
aaaactaaac caagccaaac cacaaaggaa atctgcacaa actcgag 347

<210> 1400
<211> 292
<212> DNA
<213> Homo sapiens

<400> 1400
gaattcggcc aaagaggcct agctccttct actatagtaa acatctctgc acataatcgt 60
ttctgtgtgc atgtggaact tctccattta caaggtgctt ttaagtcata aaacgttggc 120
tcttaccatg caggggtggg cggtgtggct aggtggatgc gggtgctttt cgccatccct 180
gggcctttct ccttcccctt ttccttcact cctccctccc tccctgactc aggatatcta 240
tctgattctc tctagcaatg gatcgtgggc aatggacacg caatatctcg ag 292

<210> 1401
<211> 213
<212> DNA
<213> Homo sapiens

<400> 1401
gaattcggcc aaagaggcct agtaaaattt tacaataatt atttggatta ttcagaagat 60
ctaatttaga tgagtaaatt caacttaagt ctgtgtgtaa aatgagtaga aaataggtct 120
tttaaagaac ttaactcatt aattacgtgc taccattcct gagaggaaac atggggtcct 180
ggggaaatgg agtaggtgag gaagtagctc gag 213

<210> 1402
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1402
gaattcggcc aaagaggcct aggatgaagc tgctgctggg catcgccttg ctggcctacg 60
tcgcctctgt ttggggcaac ttcgttaata tgaggtctat ccaggaaaat ggtgaactaa 120
aaattgaaag caagattgaa gagatggttg aaccactaag agagaaaatc agagatttag 180
aaaaaagctt tacccagaaa tacccaccag taaagttttt atcagaaaag gatcagctcg 240
ag 242

<210> 1403
<211> 270
<212> DNA
<213> Homo sapiens

<400> 1403
gaattcggcc aaagaggcct actaactagt gaaggaaagg tgaaactggt tccaaatact 60
aaaatccaga tgtcatattc agtaaaatgg aaaaagtcag atgtgaaatt tgaagatcga 120
tttgacaaat atcttgatcc gtccttttttt caacatcgga ttcattggtt ttcaattttc 180
aactccttca tgatggtgat cttcttggtg ggcttagttt caatgatttt aatgagaaca 240
ttaagaaaag attatgctca ggtactcgag 270

<210> 1404

<211> 232
<212> DNA
<213> Homo sapiens

<400> 1404
gaattcggcc aaagaggcct atttaatagc aatctcaaaa ggcttctgaa atttcaatat 60
gaaattaatg ttaaccgata ttttactaca cacctacaaa cagatgctaa tggataaata 120
ttgtgtttca tttattttat tttatttatt tagttttcca agacagagtc actctgttgc 180
ccaggctgga gtgcaatggc ttgatcttgg ctcactgcaa cccccgctcg ag 232

<210> 1405
<211> 429
<212> DNA
<213> Homo sapiens

<400> 1405
gaattcggcc aaagaggcct aagagaacct acaaactaga cttgtagatt aaaattatct 60
gatcaaaaag gcagactgta aatttcctta agacctacct tggcataaag gctgacccag 120
caaaagaact gagaaataca gcctgagatg gacagcagta attgcaaagt tattgctcct 180
ctcctaagtc aaagataccg gaggatggtc accaaggatg gccacagcac acttcaaatg 240
gatggcgctc aaagaggtct tgcatatctt cgagatgctt ggggaatcct aatggacatg 300
cgctggcgtt ggatgatgtt ggtctttct gcttcttttg ttgtccactg gcttgtcttt 360
gcagtgctct ggtatgttct ggctgagatg aatggtgatc tggaactaga tcatgatacc 420
ccactcgag 429

<210> 1406
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1406
gaattcggcc aaagaggcct aaatgttttt tatttgctat ttaatgtttc tcttccttag 60
ccacagggga cactcatggg acaagtgcag accctcacag gcacccggag tcctgcctca 120
caacttgatg catggggact gcatggccct ccctgcgccc aggcctctga caggagtgga 180
gggttgcagc agtcactggg tggccaagaa ctcatttcat ggcggtgaac tcgag 235

<210> 1407
<211> 479
<212> DNA
<213> Homo sapiens

<400> 1407
gaattcggcc aaagaggcct actcgaagtc ctcaactcgt gatccacccg ccttagcctc 60
acaaagtgct gggattacag gtgtgagcca ctgcacccag tcacatgtcg tattttaaaa 120
gggatttaaa agtatcattg gattgtttgt aacacgaagg ataaatgctt gaggggatgg 180
atacccattc tccagcatgt catgattaca cattgcatgc ctgtatcaaa acacctcatg 240
taccccataa atatatacac ctactatgta ccacaaaaat taaaataaat ggtgggtgag 300
aagaaacact gcatacggtt tcaaaaccat cagagaggcc atgggaaaaa ttttaaaaat 360
atatttacga agtgaaacag ccattctaag tatgacacca aacccataaa cttgaaaaga 420
ccgatacatt ttactaaata aaaataatgt ttttgtatag caaaaccaat catctcgag 479

<210> 1408
<211> 234
<212> DNA
<213> Homo sapiens

<400> 1408
gaattcggcc aaagaggcct aataatctct gagaaattcc agactttccc taatcttttt 60
gtcttctgat ccttcaccag cactgcccctt aatgctccag tcatgtcaat acagaccatg 120
ctcctagcca acctgctcct ccaaattctt ccagcctctg cccattatcc agtttcaaag 180

ctgcttccgc attttcaggt gttcattttt agcaacaacc ccactcctct cgag 234

<210> 1409
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1409
gaattcggcc aaagaggcct acgtcgattg aattctagac ctgccttcga gtttgacagt 60
tttaagaatt taataagtta taattttata acttaaaaag aaatatgctc ttactttaca 120
ttaaatatta tacagtaata tttcctctcg tgattttttg ttctcctagg ttatctagag 180
gtacaatatt gttaaacacc ccactcgag 209

<210> 1410
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1410
gaattcggcc aagaggccta gtgcattgag gttgcaggta tacagtcacc aaagaacctg 60
aaataattgc cggaatgata tcctctaaaa gatgtgagcc tctcagagag agagagagag 120
ggttcctctt gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
cacttaattc ggttccagcc gtgtcaggga gactcgag 218

<210> 1411
<211> 321
<212> DNA
<213> Homo sapiens

<400> 1411
gaattcggcc aaagaggcct agagtaaaag cagtggtggt ttatagaaac tgagtgattt 60
ttgtgaatca tataggagag aggacaggag atgaggtgga aaaggtagat ttggaccaag 120
tcttgaagga ctttagtgta atgctgcttt ttcctttagg aacaggtggt gaggagtttg 180
ataagatttt aagtaataga atcacatgct taaatctttg tttttagaat agcagtcatg 240
gtgataatgt ggaagacatt ggctttgtgc ctagaggcaa ggggacttgt agagtgattc 300
agtaaagagg actatctcga g 321

<210> 1412
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1412
gaattcggcc aaagaggcct agactggata gattcaattg acctatttct gagttctcta 60
attctttctt ctgcctgctc agatctgcta ttgagccagc cactctagtg aatttctcat 120
tcaattatta tacttttgaa atctagaatt tctgtttcgt cctttaaaac aaatctttat 180
attttctatt taatgaggat ttgttcttgt gctttccttt gtctcgag 228

<210> 1413
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1413
gaattcggcc aaagaggcgt acgattgaat tctagacctg cctcgagctt cctgggtctc 60
cacatgctgt tcatcactct cctcctcttt acctggatgc ctcgtgcctg tgcctcccga 120
cctccactga gacaatgtca cctccaggaa gtgcccctca caatcctctc ctcccacaat 180
accctgtccc gactcgag 198

<210> 1414

<211> 241
<212> DNA
<213> Homo sapiens

<400> 1414
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tcctatgtat tttccaatac aaaggagcat acactgtata attttggctt taccagttcc 120
tgcttgcctg agtgcctgct ctttgagcct cctttacaca cttcccagtg gcctccatcc 180
tcacagacac tgctcaccag tgggcacttg caggaccagc acttacttcc cctctctcga 240
g 241

<210> 1415
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1415
gaattcggcc aaagaggcct agacctgcct ctagtttgtt gcttctgccg ttggtgtcac 60
atccaagaaa ccattgccta acacaagtca caaagatttt agagaatttt ttaaatgtta 120
ttttattcat ttatcttaca ctttatagct cattctgctg tatttttaaa aaggcagatc 180
cttcaaggac aatacatagg ggaactcgag 210

<210> 1416
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1416
gaattcggcc aaagaggcct actcaggata catcaatcac agtcagataa ttataatttt 60
agaatgtcag cttcatactt accagcactg tttattttaa tattttttcc tgttatatgt 120
aatatacata acttcaaagc acatccgtac aaacctccta caagctgcac cttcataatg 180
agaaaccata agcatacaat gtctacttcc ctcgag 216

<210> 1417
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1417
gaattcggcc aaagaggcct aggagcaggg aacaggtgtt taaaattatc caactgccat 60
agagctaaat tctttttgg aaaattgaac cgaacttcta ctgaatacaa gatgaaaatg 120
tggttgctgg tcagtcatct tgtgataata tctattacta cctgtttagc agagtttaca 180
tggtatagaa gatatggtca tggagtttct gaggaagaca aaggatttgg accaattttt 240
gaagagcagc caatcaatac catttatcca gaggaatcac tggaaggaaa agtcccacat 300
caactcgag 309

<210> 1418
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1418
gaattcggcc aaagaggcct atgacttttg gatatttggc gtgtattttt tctttaattt 60
tttccattgc tggccacact cactaaacta aattataact ctttgcttcc atattttcat 120
catattaaat gcttgcactc ttttttcttt ccatttttac tatcccagtg tcctgtttcc 180
cagaggaaca gttcatttca acagccaggg agaaagctgg gatgctcgag 230

<210> 1419
<211> 363
<212> DNA

<213> Homo sapiens

<400> 1419
gaattcggcc aaagaggcct acaggtggcc aacctggcca tctcccccac caccccaggg 60
cccacctggc caggagacgc tctccggctc ctcctgcctg gctggtgcca cctgaccgtt 120
gaagatgggc cccgggagat cctgatcaag gaaggggccc cctcgcttct gtgcaagtat 180
ttcctgcagc agtgggaact cacatcccct ggccacgaca cctcggtgct gcctgacagc 240
gtggagattg gcctgcagac ctgctgccac atcttcctca acctcgtggt caccgcaccg 300
gggctgatca agcgtgacgc ctgcttcaca tctctaatga acaccctcat gacgtcgctc 360
gag 363

<210> 1420
<211> 366
<212> DNA
<213> Homo sapiens

<400> 1420
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctagacctg cctcgagatg 60
ctgctgacct ccgcaagcct tactctctgg gagattgctg tagagaaggg tgtctttgct 120
gcagttccta tgagatctcc cagaaaccaa ggattggggt caccctccag tgacaaacag 180
aatccaacac cttctccctt ctctgctgct gtcctctgct ccagcctctt cccttccccc 240
tctagcattg ctaccttctc tcctacacgc acgcaggcat ataaacgtag gtttttgatg 300
ctcctctgcc tgttgacccc gctattttca tgtttccaac aggtttttct tccccacccc 360
ctcgag 366

<210> 1421
<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (52)

<220>
<221> unsure
<222> (193)

<400> 1421
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tctgcgctat gctgtgtctg ccgcgggagg tggtctgcac cgaatacctc accccctgga 120
agaagctctt gccctgtagt tccaaggcag gcctctctgt gctgctgaag gcagatcgct 180
tgttccacac canctaccac tcccaggcag tgcatatccg ccctgtttgc agaaatgcac 240
gctgtactag catctcctgg gagctgaggc agaccctgtc agttgtattt gatgccttca 300
tcacggggca gggaaagaaa gactggtccc tcttccggat gttctcccga accctcacgg 360
agccctgccc cctggcttca gagagccgag tctatgtgga aatcaccacc tacaaccagg 420
actggctcga g 431

<210> 1422
<211> 252
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (35)

<220>
<221> unsure
<222> (39)

<220>
<221> unsure
<222> (74)

<220>
<221> unsure
<222> (105)

<400> 1422
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atttgggtt gcantcaaac ttgtgctcag actggtgaaa ctganagtca ggcttttaca 120
ttttaaagaa aatacagtat tcattctaat tcaggtgtct acttatttta tgtaagaata 180
attttagatt tcccccccac catgaagttt cttcctattt tcttatgctg taacttaccc 240
cccatactcg ag 252

<210> 1423
<211> 223
<212> DNA
<213> Homo sapiens

<400> 1423
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aaggaccacg tggtcatcac atttgatgac cttctctcca tttttaccct ccttaacctc 120
tctgtgtttg atattgtcaa ccactgtccc tttcatgagt ccctgtttcc atggcgatgg 180
tgacattgta ctcttccagc tcttaaatcc tcctgaactc gag 223

<210> 1424
<211> 409
<212> DNA
<213> Homo sapiens

<400> 1424
gaattcggcc aaagaggcct agggcagcga gatggaatca gcaagagaaa acatcgacct 60
tcaacctgga agctccgacc ccaggagcca gcccatcaac ctgaaccatt acgccaccaa 120
gaagagcgtg gcggagagca tgctggacgt ggccctgttc atgtccaacg ccatgcggct 180
gaaggcggtg ctggagcagg gaccatcctc tcactactac accaccctgg tcaccctcat 240
cagcctctct ctgctcctgc aggtggtcat cggtgtcctg ctcgtggtca ttgcacggct 300
gaacctgaat gaggtagaaa agcagtggcg actcaaccag ctcaacaacg cagccaccat 360
cttggtcttc ttcactgtgg tcatcaatgt tttcaccaca gacctcgag 409

<210> 1425
<211> 241
<212> DNA
<213> Homo sapiens

<400> 1425
gaattcggcc aaagaggcct aacagcctgg aaactgcctc tagcagcagg ataatgcaat 60
cacagggctc atttgtttcc cttttctcat ggatctgagt ttcacaagag tgaaactccg 120
gctcaaaaaa aaggggggttt tattcgaaca acatacaaac acacaacaga atgcttcata 180
agtcacttta aacaataaaa tagacaataa taacatacat atttttataa gcatactcga 240
g 241

<210> 1426
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1426
gaattcggcc aaagaggcct agggacggag cggacccgag tgatacccgg gagactagct 60
tggccacagg agacaacgtt gaggtacaga caggtggcag agaaacaaac atcggtattg 120

cttaaaccac ttgctatttc cagttccggc ttttgctagg tctaccataa ccaaataccg 180
cagattgagt ggttcaaacg ccagagattg atattctcgc aagtactcga g 231

<210> 1427
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1427
gaattcggcc aaagaggcct acctacgtgt ggccgcccag ctgtctgcag gctgtgccga 60
ccactgcctc tgtctccagg aagcagaggc agaagtgatc cttgctgagg agggccatcg 120
agtctccgct taaatgccag cacagagaga gcactgcaaa gtcgccttcc ccaggcacct 180
gcaccgacat gcagcccgct ggggaccaca ggtagagcct gctgcctccc gtgcagatgg 240
ccagccgcgg ctgctgcggg tcccactgaa acgcgcgcac tggggacagc tgctcgag 298

<210> 1428
<211> 161
<212> DNA
<213> Homo sapiens

<400> 1428
gaattcggcc aaagaggcct aattttaatc tacattattt ttatattttc aatttgaaac 60
aacctttaaa taatttcaaa gtagacaaaa tgtttctaac tttcttcatc aaaagcatat 120
tttgcttttg tttatacact gtttttttaa ttccactcga g 161

<210> 1429
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1429
gaattcggcc aaagaggcct acaggctacc atggtctaca agactctctt cgctctttgc 60
atcttaactg caggatggag ggtacagagt ctgcctacat cagctccttt gtctgtttct 120
cttccgacaa acattgtacc accgaccacc atctggacta gctctccaca aaacactgat 180
gcagacactg cctccccatc caacggcact cacaacaact cggtgctccc agttacagca 240
tcagccccaa cactcgag 258

<210> 1430
<211> 288
<212> DNA
<213> Homo sapiens

<400> 1430
gaattcggcc aaagaggcct aatggtaaga atggtgcctg tcctgctgtc tctgctgctg 60
cttctgggtc ctgctgtccc ccaggagaac caagatggtc gttactctct gacctatatc 120
tacactgggc tgtccaagca tgttgaagac gtccccgcgt ttcaggccct tggctcactc 180
aatgacctcc agttctttag atacaacagt aaagacagga agtctcagcc catggactc 240
tggagacagg tggaaggaat ggaggatttg gagtatcagt cactcgag 288

<210> 1431
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1431
gaattcggcc aaagaggcct actgtgtgtg agtgcaggca ggctgacaat gatttcctca 60
gtgattacgt acagagcgag tccctgcggg ttaggggccc cctctggagc catcctgatg 120
gctttggggg ccttgcttcc attttccatt attatgtgga ctaccggagc gacagcgcag 180
tccaagacct tgcaggtttg tgatgaggag ggagcacaca gcacactcga g 231

<210> 1432
<211> 221
<212> DNA
<213> Homo sapiens

<400> 1432
gaattcggcc aaagaggcct agctaggcag ggtgtctgcc ccctcctgag ttgaagtcat 60
gctcccctgt gccagcccag aggccgagag ctatggacag cattgccagt aacacaggcc 120
accctgtgca gaagggagct ggctccagcc tggaaacctg tctgaggttg ggagaggtgc 180
acttggggca cagggagagg ccgggacaca caatcctcga g 221

<210> 1433
<211> 332
<212> DNA
<213> Homo sapiens

<400> 1433
gaattcggcc aaagaggcct atgcgaaggc atggcgggga cactgtgaat gtcagcccag 60
aaggtgatca gagcctgtta attaaaatgg aaagaagaca gaagggaagg tagacatcag 120
gttctccctg gagacttttc gttttcattt acgctgcgga aactgacgtt tttgcctaac 180
accccatgta atgtaaacgt ataggcttga gtacgtgtcc ggccgcatgt gtagtgaacc 240
ctaaagcttt cctaattgta gttagcatcg tccctaagcg gaacgatttt ccgtgaacat 300
gatttgtact tttctacgag ccattactcg ag 332

<210> 1434
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1434
gaattcggcc aaagaggcct acttttacat acatggttgt atgtttatct gaactatttt 60
caccaatata ttcacctagt gtgtatggaa gtgtccattt ttgtcatacc cctggtaacc 120
ctgtgatatt atttttaaac attttgctaa tggatctctg ttcttgtttg aatgtattta 180
atttccagca gaatgagccc cattctctcg ag 212

<210> 1435
<211> 398
<212> DNA
<213> Homo sapiens

<400> 1435
gaattcggcc aaagaggcct agagaaatgc aactgcctga aataacccaa actttcctcc 60
catccttgcc taccctgaga gagctttaac ctactgtggg cagccatgaa gtccttcccc 120
aactaaaacc atgcaacctt ccatcaagga aggtattctt taggtgtcct gcactttcag 180
ttttcttttc cttttttttt ttttttttt tttaaggagg acgattctgt tctctatctc 240
tgggtttttt tcctgaaggt tttctgagtc agaataagaa gttcatcaga aaccattttg 300
atggaataaa ctagcatgcc ttcacacatt agctcattct ctagttcact tttttcaact 360
tcctgtagat agtaaagcaa tgaatatgca agctcgag 398

<210> 1436
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (88)

<400> 1436
gaattcggcc aaagaggcct agtagatccg aagtggcccg cgccatctca actatgaggg 60

gacacccgta ggcggcggga gagggacncc gcgaggagcc aataaagctc cgcaaccgga 120
agtgtcttct gggaggggtc gtacccggaa gtgtggcacc tcccgggccg cacccggaag 180
tgtgatgcca ccgccgctac ggggaagtaa tggtatccgg ccaattgaga ttcggagtta 240
aaacagggat gtgcagatgg aggtcggagg agacactgct gccccggccc ccgggggcgc 300
ggaggacttg gaggacacgc agttccccag tgaggaagct agagaaggtg gaggggttca 360
cgcggtcccg ccggatcccg aagacaagga cgctcgag 398

<210> 1437
<211> 426
<212> DNA
<213> Homo sapiens

<400> 1437
gaattcggcc aaagaggcct acttccaatt aactagtttt gacaacattc aaaaaagagt 60
aataaacttc gccttaattt taataatcaa caccctccta gccttactac taataattat 120
tacattttga ctaccacaac tcaacggcta catagaaaaa tccacccctt acgagtgcgg 180
cttcgaccct atatccccg cccgcgtccc tttctccata aaattcttct tagtagctat 240
taccttctta ttatttgatc tagaaattgc cctcctttta cccctaccat gagccccctc 300
accaccaccc tggccaccgc atgcctcatc ctggcatcaa cgagcacccg ccttgggctg 360
gaccccagca ccctgacttc ggccctcccc cccatggctt caacgggcag cccccacaca 420
ctcgag 426

<210> 1438
<211> 509
<212> DNA
<213> Homo sapiens

<400> 1438
gaattcggcc aaagaggcct agagctgcgg ggaaggaggg ctgggaggcg ctgaagcgag 60
ggcagatctg agtgtctgta ggagttgcta ttccaaaaaa aatcattact ctctaattgt 120
tctgatttta gatcagcaaa gcgtgccggg cggtggtgga gagactgagg gcggacaagg 180
cgagagggaa cgagccgtcc acccttcgga gaagcctagg cgccttgtaa gtaattcgcg 240
aacagtcggg agaacaaaca gccaagcggc gctgcagtgg ccgcacttgc gcgcgtctca 300
atcctggggg ctctgcgcgc ccgccccagt ccctcgcccc attgactcag tggcttctcc 360
gggcgctgca gcctccgcgg ggggcttcga agggccgagg ggctccggca gagagggagt 420
ggagagggag acgcgccggg accgacgaac aatcctgccc ctgcggcaaa ggtctctacc 480
cggcgctggc acctcgcagg cccctcgag 509

<210> 1439
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (270)

<220>
<221> unsure
<222> (280)

<220>
<221> unsure
<222> (289)

<220>
<221> unsure
<222> (304)

<220>

<221> unsure
<222> (349)

<220>
<221> unsure
<222> (352)

<400> 1439
gaattcggcc aaagaggcct agggaccggc tttaaaatta agtgggagca ttgcattacc 60
accccttct ccttatgccc acgggcatgg gaaaggaggc tgcatttgtt gtaaaaaacg 120
aggttctttg tacaatggtt gcacgttact tcgatgcgca cgctccgtct gtcgtagtgc 180
tgggtcagac tcttttcaag tgcaaaggag tccccacact ccaagcactt gtacccacgc 240
gtcggtaacg tgatccctgc attggcgggn ggactgaggn ttgggatgna aacagggact 300
ggantgacac tgctcagcac cttgttgaaa gcttccacca cagaactcng cnaggacgac 360
accacctgga ctcgag 376

<210> 1440
<211> 449
<212> DNA
<213> Homo sapiens

<400> 1440
gaattcggcc aaagaggcct aagggtgtag acccgatcaa tgtgggaaat gtggaagaca 60
ggctcatcgc tggaagggtc tgtgggcagt ttcaccaaga cttcattcag gaaaatgggc 120
gttttataca ttttgaattg agcattggac ttcgagctga aaagtttctc agagccagag 180
gaaacagcaa actgcttgac catgtaggta agaagcagga agtcattgaa gaggaatccg 240
tgcagttcct tgttgctctt ggtcttgtat aatttcccac tgtgtaagag cttccggggc 300
cccaggcagt tggtgagaga gttgaaaata agttgctccg cgaggccttc acactgcacg 360
tgcgcctgga tccactccag tcggtccgag tttccttct cccgaactcc ctcattcact 420
tgagagcaca gctcctctgc ccgctcgag 449

<210> 1441
<211> 316
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (298)

<220>
<221> unsure
<222> (308)

<400> 1441
gaattcggcc aaagaggcct acaatcttat tcatatatta gcaagaaaaa gggagagatg 60
cttactggtg gatgctatag agtcctctgt ttttaaaagt accactgcgc ccagcccagt 120
attctgattt taaccaactg gttctgatta tatttaccaa aactggagtt aacttctctt 180
tccttatact cttctctccc tatcccctac tcacaccgag gcttaacagc aacctcagat 240
ctcatccaat ggacagaaac aaatgttaag caacttgtca tctcactcat gatttacnta 300
tgctaatngt ctcgag 316

<210> 1442
<211> 251
<212> DNA
<213> Homo sapiens

<400> 1442
gaattcggcc aaagaggcct acacaactca gttttgtctt ctgtattgtg tatttgagtc 60
ttctgtattc tgtatatact ttatggtgaa cactttgtgt ttgaatattt gtgtgccaaa 120

tgaagcctgt tttgtctaaa ttcctatttt gcaaggtgca gtcatctctc tctttctctc 180
tgtttttctc tttctttctg tctctctcag cctctctctc tctcagtgca tgcggcaggg 240
gctcactcga g 251

<210> 1443
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1443
gaattcggcc aaagaggcct agcccttgac cacataccaa atagaggtca gcttcttagc 60
agggcattca aggccactgt agctcctacc tacttttcta gtcatatctc tttccacccct 120
ccacatggcc agcctctaca ccgtcacgat gaatgactgg ccctcatccc tgaaggctgc 180
agtgtcaatg cttctgctca cttctctttt cctttcttca agctgctctt ctgctgttac 240
ctccaggaaa cccccaaggc tcgag 265

<210> 1444
<211> 417
<212> DNA
<213> Homo sapiens

<400> 1444
gaattcggcc aaagaggcct atttgacaat ctttggcatt ccttgtagat gcatcacttt 60
aatctctgcc tctgtcttca cacagcattc tcctccatgt gtctctgtct ctgtccaaat 120
tttcctcttc taaggacacc agtcatattg gacttaggtt tcaccccaat ccagtatgat 180
ctcattttaa cttgattaca tctgcaaaga ccctgtttcc aagtaaggtc acattcacag 240
attctaggtg gacatgaatt tggtgagggg agggggtagg ggactggata ctgtgcaaca 300
ctatgtacca ggcactgtgc taagtacttt gcatacattg tctcatttaa ccttcacaat 360
actcccctga gattccttta ttattattat tcccatttca cagatgaaac gctcgag 417

<210> 1445
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1445
gaattcggcc aaagaggcct aaacccttct gttgggcgtt tctgctgaga ggcgggaggc 60
gctgagagtc tgtgcggagg tccgtggaca gactgctttg ctcgttgttg ctcttcggag 120
gcggcgatcc ccgaaggcga gctgaaatac ggctgcaggc tacaatttgc agccgacgat 180
tatggaagac ggcaagcggg agaggtggcc cacccactcg ag 222

<210> 1446
<211> 221
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (52)

<220>
<221> unsure
<222> (70)

<220>
<221> unsure
<222> (97)

<220>
<221> unsure

<222> (209)

<400> 1446
gaattcggcc aagaggccta gatgtttgta acacaagggg tcattttctt cnatactttg 60
gggttctctn gtccattctt attttcagaa gaatttngat catttaggca tgtgtgcaaa 120
gaatgatgtt ggtgaggctc agattcaatt gaaacagcaa tcagtgagcc actagtggca 180
ccaagcacat ttgattcgct ttcagaggng ggaagctcga g 221

<210> 1447
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1447
gaattcggcc aaagaggcct acaggaaggc agaatgcacc catcactact tagagtcttt 60
cttgccttgg gcactttctc cacaaatacc aaaacgtata catcaagtgt gagcaggtca 120
gcctgctctc tgccatctct gttagtttta ttttcatcca caaatttaaa gataaaccat 180
caaattggaa atcaccaact cgag 204

<210> 1448
<211> 253
<212> DNA
<213> Homo sapiens

<400> 1448
gaattcggcc aaagaggcct agaaggacat cacaatgctg ttagacaccc agtgcatctt 60
tgccctgatc agaatttgga actacaataa atctcggata cattccttcc gaggcgtgaa 120
ggacatcaca atgctgttag acacccagtg catctttgaa ggagaaatcg ccaaggcctc 180
tggaaccctg gcgggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag 253

<210> 1449
<211> 422
<212> DNA
<213> Homo sapiens

<400> 1449
gaattcggcc aaagaggcct agcctccatg tgagaggatg gcagactcag tgtagggtat 60
cagagcatga atgggataag gaggatgacc atttgggaga gtagaaagag tggcagctat 120
aacccattgc agtgtgttgg agcctaagtg gaatgatgag ggcatcctgt gcaggagggc 180
agccagcctc aggatagtag aacccaggtg gagagggggg cagtccatgc agacagcagc 240
acagtggcat cagcttgatg gagagtgtta gagtaggggg cagcagtggc agtctaataa 300
ggtatgaagc cttgagtaca gtaaagaggg tacctgtatg tagccatggt ggcaatgaga 360
gactgattac tacctgctgg agattgtttt aagtgagtta atatattaag gagaaactcg 420
ag 422

<210> 1450
<211> 433
<212> DNA
<213> Homo sapiens

<400> 1450
gaattcgcgg ccgcgtcgac agacagtctc taggatgtga gaaagagaga gaagggcgaa 60
aaggaaagtt ggcgtgaggg agaagagaga aatgtggcag gggtgagggg aacctgggtg 120
caggccaggc tgcctcagcg ataccccagg gaggctagtg tgggaaggaa ggaccaggaa 180
tccctgaaag gaccaggagg caacgggacc tgagggggtg ttggggaggc aaggaggggc 240
tgctcggact ggagctgctt gccaaggtat tcccagttgt gcaccatgag cttctgcacg 300
gccagcagag cattatagcg gacctgctgg tcttcatgat gcatgtggtt catgaccagc 360
tgcttcccac cgagctgctc gatgacccgt ttgcctcgtg gataatgccg cacatattct 420
ccaacatctc gag 433

<210> 1451
<211> 609
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (571)

<400> 1451
gaattcggtc aaagaggcct acacatgtgg gctcgttctg tcactcaagg ccagcagaag 60
gggaaccaga agtgtcagcc aattttccag aagagaaaca gagactccca gaggctgagg 120
gcctggaggt ggtgcagcac agtcccacat ctgatggggc tcctttattt ctgaaaggcc 180
atttgcttta gtctttgagt tgacagaaag aggcatggac ttgtctatcc caattgatgc 240
tccagcctca aaagctgtgc attcactata gctagccact gagtgtccac accttctctg 300
aaacttcaac tctaatagct ggaaaagaac actctttctt ctcactctca catggttaga 360
gagagagaga gagagagagg tggatgaaca tactttacag atgtgttcac atttgctaag 420
tggtccccaa gccatttctg gaaagaatga ggttgcaatt gcctagtggc tgctcagggg 480
gagagagctg gcaaggggct gacagcagac accctggcat cccagtgagc gtctgctgtg 540
cctggaactg tagtccccaa atatggtcaa nttgcgcgtg aaagtatttt aagagctgta 600
atcctcgag 609

<210> 1452
<211> 806
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (364)

<400> 1452
gaattcgcgg ccgcgtcgac aatataaaat tcccattaaa atggtgcaaa taatagagga 60
acaagaagta aggttactct ccttgcatga taccttccct ctcaggacta attttagcaa 120
aattgagatg taaaatcata tcttttttca gttatttaag caacattaat gatctattaa 180
atgaaataat ttgtctgaaa atatctagta taatgcctgg ttgatagtag gtactgaata 240
tttgctattg ataattttat tttctcattt cctacctact tttcttcctt tcctttaatg 300
tttaaggctg tgttagcatt gtttagcctt tacattcttc agaatttgaa tttttaatcc 360
tgtngggtct taatttcttg ggatgtgttt tattttgagg agagtagtgc aagggtgaga 420
ggttatcatt ttagcgtgct gggtaaccag ggggacccca gtgtgacctg agttcttgtt 480
gtgtctgctg gtataattta tgttatggca ggcagtgggg tgggaggtag gtaggtggta 540
gatatatgaa aagtagaata ttaacctctt agtacatttg aagcatgtac tgcctaattc 600
aaagtgaatc tttctgtatc atgtgcctcc tgagggcagt tacgtgtctg ggataagtag 660
agcgtttttc attctactct caagcacact aaaatgctta ttatgtgaag tattaaggaa 720
taataaggtg attttcaacc ttgttataca aaacaaaaat ttgcttttct ttccaatctt 780
ggatgattga caggtattgg ctcgag 806

<210> 1453
<211> 576
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (69)

<220>
<221> unsure
<222> (530)

<220>
<221> unsure
<222> (554)

<400> 1453
gaattcgcgg ccgcgtcgac gaggatagtt gtgaaataaa tagctcactc cagggagtga 60
gaagatacnt cccccattca aggtacactg ccaaactgca ggaaagagat cctagcaccc 120
accaaggtgc aactatgcta ctggatctct gggtggaaag aaacaaggag ggagttacag 180
aggaataatg tgagcagcag aacagagatt ttcatccaaa cattatttat gatgaatttg 240
gggaaaatca gatgaaaaat atatggccaa agtgaatcaa agaagacact aaaattctta 300
tatttttatc ataatagaca gtgctgcact gcacaaaact ttgtcttcat tctataactc 360
ttttccaagt ctagaaaaga gtctagaaaa actagactca tatcaacaag cttactctat 420
tcatgcttac agcgaaaatg agggcctcaa attaggaggt ctttcctttt aagccattct 480
tctagaagaa tgcagtctag aagttgtgag ctgagctttg gccccctaan atcttccaga 540
aatgaaccca cctnatacca caatcaaacc ctcgag 576

<210> 1454
<211> 145
<212> DNA
<213> Homo sapiens

<400> 1454
gaattcgcgg ccgcgtcgac cgagtgtttg gtgtaacctg tagcagcaca tgactcactt 60
gctttcctcc attctggccc accacccatt aatactgcag gtgaagacag atttgctctt 120
cctcctatta ctctcctgtc tcgag 145

<210> 1455
<211> 439
<212> DNA
<213> Homo sapiens

<400> 1455
gaattcgcgg ccgcgtcgac cggtttcggt agcgacggta gctctagccg ggcctgagct 60
gtgctagcac ctcccccagg agaccgttgc agtcggccag ccccttctc cacggtaacc 120
atgtgcgacc gaaaggccgt gatcaaaaat gcggacatgt cggaagagat gcaacaggac 180
tcggtggagt gcgctactca ggcgctggag aaatacaaca tagagaagga cattgcggct 240
catatcaaga aggaatttga caagaagtac aatcccacct ggcattgcat cgtggggagg 300
aacttcggta gttatgtgac acatgaaacc aaacacttca tctacttcta cctgggccaa 360
gtggccattc ttctgttcaa atctggttaa aagcatggac tgtgccacac acccagtgat 420
ccatccaaaa accctcgag 439

<210> 1456
<211> 557
<212> DNA
<213> Homo sapiens

<400> 1456
gaattcgcgg ccgcgtcgac ggggaataga tccacaaaag catgtatgta cttacaaacc 60
aagctgtaga gatcaagaaa agaacttaag tgttgatctc aagatttcta aattgtcaag 120
atttacatgg cattgtggtg gaactagtta acacttagag cttttggtat gtaataacta 180
tttgctatgg actgattaaa tgtttcaaaa gattgtgttc ttcaattttg gtgggttttg 240
atttttgttt ttttaactgc ctctcagatt atatttactt agtttaaatt tctttgcttt 300
attcattaaa gtataaaaac ttcaggtctc tgatatttat tttcacttgt ttactaatta 360
tttacaaaac accctttgtt gacttttatt ttataaatgt gtaatgtatt aaacgtcttt 420
aaatttttgt tcaactgaaa ctacattaac tttgatttgc tttactggga ttttttttta 480
aagacacttt ttccatgtca gtgcgcagca cttaaccagt cgtttgtatt ccctttctct 540
tcaatccaac cctcgag 557

<210> 1457
<211> 413

<212> DNA
<213> Homo sapiens

<400> 1457
gaattcgcgg ccgcgtcgac ctttcttgcg tcaacactta ctacattagc aacactgatt 60
agtttcagta aatgtacatg tataacaaag tatacatgta ctagtatata ctgtaaattt 120
tcaaatataa ctgaagcaaa tattttgtct tatgcagttg acagggtatt ggtcagttac 180
agttgtcatt tgaatcagtg ctgtcttatt tacattattt tctagatagt ttgctatgta 240
ttttaggtac tttaatagct ctttaaatta aagaatgtca agggatgtgt gtggctaggt 300
gggtgtacac acacacatac atgaggtcgc tcatggattc aggtttgtga gtgtaattga 360
ttttaagtca tttatttgac aaccacacat tgtcacataa gcacagactc gag 413

<210> 1458
<211> 142
<212> DNA
<213> Homo sapiens

<400> 1458
gaattcgcgg ccgcgtcgac gacctgcctc gattgaattc tagacctgcc tcgagccaga 60
gcccaccact actccaccca gctaccctcc agataggcac agtatggcca ggcttggcct 120
cacggtcagg gcctttctcg ag 142

<210> 1459
<211> 698
<212> DNA
<213> Homo sapiens

<400> 1459
gaattcgcgg ccgcgtcgac attctgagag tatgtatgcc agtttgttgc atggatatat 60
tgctgaggtt tgggatatga atggtcccat aacccaggtg gtaagcatac taaccactag 120
atagttttta aatcctaccc tctgccccac tagtagtctc cagtgtctgt tgtgccatct 180
ttatgtccat gagtatgaaa tgtttagctc ccacttataa gtgagaacat gtgttatttg 240
gttttctgtt catgcgttaa ttcacttagg ataatggcct tatataatga agcccagctt 300
tcaaaaacca gaaattacag acacattttt ttttaaaaaa gagacccact attaagagat 360
aaagcaatca gtagaactag atcccgatat aaaggctata gtggaaaaga cagataatac 420
gtttgagcag attggaaatt tcggcacaga aacgttaaga aagattcaaa tggaaattct 480
ggaaatagac acattaacag atgaagaatg gctaagacct tcagattctt tagtagactt 540
aatgcagcta aagaaagaat gaatgaacct tgaatgtaga ttcatagaaa tacccaaact 600
aaaaggcaag gagaaacaga acagagtgtc taagaattta ggaaaatcta aaactgtata 660
acatgtctac tagaatttca gaagaagtaa tcctcgag 698

<210> 1460
<211> 239
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (189)

<400> 1460
gaattcgcgg ccgcgtcgac taccaactga gctgtaaaat tgtgacagtg tagcttattg 60
atccattgtc ttgttggata ttattaagca tgagatttgg ggttatttcc ttcgttcctt 120
ccttctctcc ttccttcctt ctctccttcc ttccctctct ccttccttct ttcctttctc 180
cctccctant tccctccttc cctccctccc tccttccttc ccttgccccc cccctcgag 239

<210> 1461
<211> 836
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (509)

<400> 1461
gaaattcgcg gccgcgtcga ccaaactctg cctacatgtt atctccaaag ccacagaaga 60
aatttgtgga ccaggcttgt ggcccaagtc attcaaaaga aagtatggtg agtcccaaga 120
tctctgctgg acatcaacac tgtggtcaga gcagctcgac cccatcaac actcggattg 180
aaccttacta cagcatctat aacagcagcc cttcccagga ggagagcagc ccatgtaact 240
tacagccagt aaactctttt ggatttgcca attcatatat tgccatgcat tatcacacca 300
ctaatgactt agtgcaggaa tatgacagca cttcagccaa gcagattcca gtcccctccg 360
tttaaagtca tggaggctat aggatcttat gtaaacagtt tttgtttctg atagtaatgg 420
actttattct aacttgagat cagtggcgga tcaaaaccta caagattcaa ctgaaaagtt 480
ggcagttatg gttttctttc atctgatgng tcagtatctg ttgatttgct ttgtagtttt 540
gttgacatct taagattgat gtgaaagttt tagatttttt accctgctct ttgcctcagt 600
cttttgtacc gagcctttaa atagatgcca ggaatgaagc tactgtgtta aagtagaaag 660
tcaaccgatt atcatgattt gagtcagtgt tatgtgactt caaaataagg tattgactgg 720
atttttttta aagaatgtga aaatatgatt tttgctgagg tgttattttt attaattgaa 780
ttgtaaattt tgatttttttg aagtgttgaa atcgggaaca ctacacatag ctcgag 836

<210> 1462
<211> 394
<212> DNA
<213> Homo sapiens

<400> 1462
gaattcgcgg ccgcgtcgac gcacagccaa gatgttttaa aagagtcata taagagaaat 60
tgtaatcctg ttttataaag aggacagtgc agggggaaag ctgtacccaa tccccctgta 120
ttacaccccc cttccccaaa gataatcatt taagatttcc aaagtatttt ttttatttat 180
ttgaaattat gtatgatttt attttcattt ctccaaagct ctagtagtct tttaatggtc 240
aagaaaatgg tcacagggac aaatgtctaa taatgaacaa ctagttaaaa tagttgttta 300
taagttcctg tcaacttgag ctttatggat gcgtgcataa tttccattgc gtgtgttgtt 360
aggatatata tacgcttttc cgacagcact cgag 394

<210> 1463
<211> 864
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (581)

<220>
<221> unsure
<222> (583)

<400> 1463
gaattcgcgg ccgcgtcgac aaaatatgaa gaaaacatag tatttcaggt cgtttgctcc 60
cttatatcac ttatcagatt ttggggactt taaggaccta aattttcaaa aaatcaagt 120
tagatcatgg atttttttga aaacttgggt cattaaagtc ctgaagaaaa tttgaaaatt 180
taagtcctta acgtccagaa gacgtttatt ttagactgta aagtaaagta aaaccaaggg 240
ttaagggtag gtaactttct tttgttttaa acaatggtat gtctatatct atatctatta 300
tcatctatag gtatatagcg tctatgtgtg ctaacccagc accaattgcc tcccctagct 360
tatagaagag accagtgaat tagaagtagg agatgtgagt tctaacccca tttctaccac 420
taattagata atagaattcg aaaaactcat tgacttcttt cagcattggg tcccttttgct 480
gtaacatgaa gacattgaaa gaagtaactt tatgttagtt gtttctccag tatgttgtgt 540
gtgtacctgg tgtggacctc acggtcaccc ttgccagaga nantagattt ttttttaag 600
tctatactaa tattctttcc tcactagaaa ggatagtggg gtgtttactc tcagttgtaa 660
ataactctgt tttctctgcc tgcatgcatg tcctgtctct ctagccattt tataaatact 720

gaaaccagta atcatgattt aagtttttgt gtagactgca gctcatctgt tataaacaat 780
aaaagctgag taaatatgtg ctaatggttt taccataagt cctgtaggag cattctcttt 840
accccattta ccccaatcct cgag 864

<210> 1464
<211> 505
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (44)

<220>
<221> unsure
<222> (486)

<400> 1464
gaattcgcgg ccgcgtcgac atctcttgaa cccgggaggc ggangttgcg gtgagcagag 60
attgctcgat tgcactccag cctgggcaat gagcaaaact ccgtctcaaa aaaataaaaa 120
taaaaaataa aataaaatag ttagctggcc atggtggtat gcacctgtgg tcccagctac 180
ttgggaggct gaggtgggag aactgcttga gctcaggagg tcgaggctgc agtgagccaa 240
gatcacacca ttgcactcca gcctgggcag caggacgaaa ctctgtctca aaaaaaaaaa 300
aaaaaaaaaa aaagttcctc tcattgggta gatatagcca ggccttgctc agtcattggc 360
tggggaccac cctgagaaaa gcacaggata aaaacctgaa gctgatgctg aagacactaa 420
caggtgggga gtgtccactt accatactcc ttgcagctga ggggtggctc ctttctagaa 480
gggggntctt accgacaccc tcgag 505

<210> 1465
<211> 711
<212> DNA
<213> Homo sapiens

<400> 1465
gaattcgcgg ccgcgtcgac cttgcaggga agtggctttc tgccatgtag agccaggctg 60
gcaacctgcc ctctgccatc agggagtgag catgaacctg gaaacctcta ggacgcaaga 120
gcgaggctgg ctgtcccctc gtgtgcagtg cttagacctt cttgccacac atcccgtccc 180
tcacctcact ggatagcccc cgaatcaact gttcacacga aagcagctgc ctggttctga 240
gtggccatgc tcactcccaa gcacaggctg aatgaaaaga aaactgtgca agtagcttgt 300
atggtgggaa gcccccagca gaggctgagg gtgcagccag gtgctctgga agccttgagg 360
cctctggtgt catcttcctc acctctaaat aagagatggg ctaggttggt caaggtcctc 420
cctgtcctaa aacactttaa tgaaatggaa gaaaggctgc aggctgatag aggagggaca 480
gtctggtttg gttccctcaa gtcttcagga gagggctcaa ggacagtctc ccatttcttg 540
ttggcaaaat gtaaagtgca gtctggaccc tgtccattga gtagagactc aggaggccaa 600
ccaagatccc tgaaaagcta acagcgtggt cagccttccc acagacagtg cacccaccgt 660
gggaggacac ttcgcccccc attgttaacg tccaccgcgc ccgaactcga g 711

<210> 1466
<211> 802
<212> DNA
<213> Homo sapiens

<400> 1466
gaattcgcgg ccgcgtcgac acatatgatg tataaagaat ggtgcaggaa aataaatata 60
aaagacagat ctcattcctg tctccgtgag ggagtagata ggacatgtat gtaaatgttt 120
gtgcgtgtgt gtgtttcaca gctcttacac caatgccact ggccagttat gacatctcta 180
tataacctcc ccacagaaag gatctaacag tactaagaaa ttgtggtatt ttgagctata 240
caaatagttt ttgaaatttc ttctgaatga agacctttgg atttctaaaa gcaccaaaac 300
aaggcttaca gagaaaaagg gtatctaaac tatcccaatt tcagactgac tgtatgacaa 360
agatatactt acattgatat taccagttta tgtaattttt gcaggataaa tcacaagttt 420

gagtgtagtg gctctcaatt ttggggggag gtagttgaat aaattttaga attctcttta 480
agaatagcca atacttatta agtgaaagtg tgccagatgc tatggtaggc attgagctta 540
taaaattgaa tatcaaattg tctctgccct taatgagtga caatccaggg gaggcagaag 600
tgtaaataag tatttataat aatgtataag ggttttgata tgctacttct atattttgca 660
tacatgcata gtaatatagg aaaggataag aagtattatg atataggaag caatatagaa 720
aatgaggtaa ttacattttt ctagaattgg gggagatgac ctataagtag aattttagac 780
gttgtaaagg gataagctcg ag 802

<210> 1467
<211> 433
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (249)

<400> 1467
gaattcgcgg ccgcgtcgac cagaagtttt atttacaaga tctcctgaat tattaacaga 60
ccttaaaaat tccaaatgga aaacttctgt tatcaaatca ctgaaaatag catatatatc 120
tggttctacc aaaaaagaaa aaaatctggc agtattgacc agtttccaaa tgattaagaa 180
aagagtgtca agaaaccagt aaaatacata ggaaaaggtg gccctttttta tcctcctcca 240
ccacaccant ttggaaaaca ttttagggtt cttcattgta tttttctaat acattttacc 300
aattgtccag aaaatcaaat cccgtcttca agacgacatt acttgagctg acctgtgcaa 360
acttgggttc cgagaacagg gtgtcttccc catcgtcctg cctgacatca ggagatggca 420
gcttcccctc gag 433

<210> 1468
<211> 752
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (187)

<220>
<221> unsure
<222> (199)

<400> 1468
gaattcgcgg ccgcgtcgac gtgggatttt ccaagaaaaa agggtcagag tcctggtatg 60
actgctggca tcagggtgaa gggtgaacac tgctctcagc tgatagggct ctttccagcc 120
atcctgagat cttccacttt aaaactgcca taactcctct gccatccagc aggtgagatt 180
aactcanccg caccaatcng ttaaactagc cagagtccac tcacaaatta tccccagatg 240
acagattgtc tacaatattc tcactacatt cacaaccttt gatattaata ggtatttggt 300
ccttaatgat attaccaatg ctaaaataag gaaaaagcaa tacaatggag gtaatggtgg 360
taaaggtgag aggtgtgtgt gtgtgtgtct gtgtgtgtgt gtcaatcggg aatgcttggt 420
atgtaaaagg ggaagaatca atactgtaga acactcacac gctgatttat cactaggcac 480
aaatctaaat tcagtaatag gttcaacatc atcatcactg tcttcctctt attcatcagc 540
aacaggttct tttgattctt ctagaaaata aaataccctt ttaaagtcat tatttgactt 600
taaaaaaatg aagcatattg taaatctgaa taatgcaatt caattttaat ttccaattat 660
ggccgacaaa tttatttcca atgatggttg ccaaattctg attatacagt gagcatccta 720
gaaaagcctt gcctcgatct cctgacctcg ag 752

<210> 1469
<211> 144
<212> DNA
<213> Homo sapiens

<400> 1469
gaattcgcgg ccgcgtcgac agcggatatt agtgaatgga gattccaata taagggcatc 60
tggaggcgtc tctcgctcac agaggcgccg caccagattt gtcgccacgc cagtgcccag 120
agagtggccc cagatgtact cgag 144

<210> 1470
<211> 501
<212> DNA
<213> Homo sapiens

<400> 1470
gaattcgcgg ccgcgtcgac gtatggtggt atactcataa gccttcagct tgctgtagta 60
atcagaaaac ttgttgtaga ggatggaaat gggcatcccg ttgagaatga tcccaaaagc 120
aatgcagagg aaggcaaaaa acctgcccag gtgggtctct gggtacatgt ctccgtagcc 180
cacggtggag atgctcaccg cggcccacca ccaggagtgg gggatggtag tgaagttggt 240
gctgggcaca tcgtgctcca cagagtagac agccgcagag aaagtgaaga tgcccatggc 300
gatgaagagc agcaggcagc ccacctgctg gtagcactgg cgcagcgtga agccgaaggc 360
acgcagtccg gtggagtggc gcgccagctt gaggatgcgg aagatgcgca tgaggcgcat 420
gacgcgcaac acctgaccca ccttacccac gctgcccacc gtctggccgc gttggtggcc 480
ctcgcccgtg aagcactcga g 501

<210> 1471
<211> 514
<212> DNA
<213> Homo sapiens

<400> 1471
gaattcgcgg cgcgtcgaca gcttgtaaag attctccaaa gaaccctaca tttaacctgt 60
aagcagggtt acactctgtc ttgtaacctt ttgcatcatc ttctccgttc taccacactt 120
atctacccta cagaatactg cagtgtgcca ggtggctttg acaagcctcc ttctgaatac 180
tttcctatca aggactgggg caaacccggg gacttgtgga atctgggaat ccagtggcat 240
gttccttctt cagaagaagt gtcttttgcc ttttatcttt tggactcctt tcttcagcct 300
gagctcgtca aactccagca ttgtggggat ggaaaacttg aaatgtctag agatgatatt 360
ctacagagtc tgactatagt gcacaactgt ttaattggct ctggaaacct cctacctccg 420
ttgaaaggag agccagttac taacttagta ccaagtatgg tgtccttgga agagacaaag 480
ttgtatactg gacttgaata tgatctgtct cgag 514

<210> 1472
<211> 485
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (87)

<220>
<221> unsure
<222> (90)

<400> 1472
gaattcgcgg ccgcgtcgac gtgagtttag cttctgacct tttcataggt tagtttttta 60
taggagtgtt aaatataaat tagaccntcn tagtgcataa ttgtatcaga tacttgaatg 120
gtgcatgtcc agtagataat agtgttcttt gtttcgaggt tcatccattt tataacataa 180
gtaatcctta atttcttctg aagagtgtta tagaacagga gcaccaaagt tcatccttag 240
aatttttctt aatgcaaaag gtatagtgat atatcttaca ctggtcaagt aatctatgtt 300
atttgctgca gataatataa aagttgattt aactttaagt cttttttttct ttgttctcag 360
acagcaaatc aaaaggcctc cagtggataa tagatacaac gatagcttat cccaaagctg 420
aacctataga tattcaaacc tggatccttg gatacaggaa accaacagtc acacatgttc 480
tcgag 485

<210> 1473
<211> 814
<212> DNA
<213> Homo sapiens

<400> 1473
gaattcgcgg ccgcgtcgac gtaaagggtt gtaactgact acagcatgga aaaaaatagt 60
tcttttaatt ctttcacctt aaagcatatt ttatgtctca aaagtataaa aaactttaat 120
acaagtacat acatattata tatacacata catatatata ctatatatgg atgaaacata 180
ttttaatgtt gtttactttt ttaaatactt ggttgatctt caaggtaata gcgatacaat 240
taaattttgt tcagaaagtt tgttttaaag tttattttaa gcactatcgt accaaatatt 300
tcatatttca cattttatat gttgcacata gcctatacag tacctacata gtttttaaat 360
tattgtttaa aaaacaaaac agctgttata aatgaatatt atgtgtaatt gtttcaaaca 420
tccattttct ttgtgaacat attagtgatt gaagtatttt gacttttgag attgaatgta 480
aaatatttta aatttgggat catcgcctgt tctgaaaact agatgcacca accgtatcat 540
tatttgtttg aggaaaaaaa gaaatctgca ttttaattca tgttggtcaa agtcgaatta 600
ctatctattt atcttatatc gtagatctga taaccctatc taaaagaaag tcacacgcta 660
aatgtattct tacatagtgc ttgtatcgtt gcatttgttt taatttgtgg aaaagtattg 720
tatctaactt gtattacttt ggtagtttca tctttatgta ttattgatat ttgtaatttt 780
ctcaactata acaatgtagt tacgctacct cgag 814

<210> 1474
<211> 671
<212> DNA
<213> Homo sapiens

<400> 1474
gaattcgcgg ccgcgtcgac atgccaaata tcatttggta tacttaacaa tattagtgtt 60
ttaaaatgat gagttataat tatttgaaca tatagatatg taacatgcca caaatcattt 120
ctaccatgca aggtgtataa gttgtttatt ttttagtgtt aaaactataa tagcttgaat 180
ataggtacca atgaacaaat tcaaattgca cctcttttct taaaagaatg ggatttaaac 240
tcttataaac attctttaac tttttgtttt gtttgttctc tttttttcct tttgcattct 300
tctagccagt gattgatctg ctaatgcttt ctttgccact ctaagtaaaa tttatttcac 360
ctcctcaatg aaaacctcat ggttttgctg gctgtttata actgcatcgc acttctagtt 420
gtggcttgaa ttttcagtta agctttcatg gtatgtaatt ttccagcctt ttgagaaaac 480
aagcatacta taagtgagag ctgttttgtt ttccttgttt gtttgtttca tgctaggctt 540
ttcctggcag catgtccatt gcaggcagtg gacaagaaac caccagcatt gagctaaccc 600
agtacatgct aggacctgtc ctagaggggc cacttttcat tacctgagtt atttgtacag 660
aagagctcga g 671

<210> 1475
<211> 513
<212> DNA
<213> Homo sapiens

<400> 1475
gaattcgcgg ccgcgtcgac ctcatgcata tttgcatgtt tacagtctag gaactttaaa 60
cagttcttta aatgccaaag tcctaaacag atgttagctg ttagcttcct cattaataaa 120
ataagaagaa aaattatgct ctgagaggtt aaatgacttg tttaaggtta cacagtcagt 180
ggaaaagtct gggttacagc ccccaaattc taatttgtca tccccattta tatccttttt 240
tttaaattgt aaaatatgtc atatgtataa aagtatattt aacataaacc cacaacttaa 300
agaataacaa attgaaggct tttctacttg ctacccagct taacaaaaag gagatttcta 360
gtacctttaa agcctcttgt gaggtcctac ttgattgaat ctcccatctt ctctctccct 420
cagagataaa cagtttccta aattttatgt gaatcatttc tttgcttttc tttatacttt 480
taccaaatat gtgcatatcc ctaaacactc gag 513

<210> 1476
<211> 507
<212> DNA
<213> Homo sapiens

<400> 1476
gaattcgcgg ccgcgtcgac atttcagtg taagataaat ggatgagtaa actcaaatat 60
gtatcacgtg tgctttgtat cttaagatgt gtttccaaga gcatctgaaa ttttgtttgt 120
acatgtatct tgatcattta taaagccact gtgatctata aatcaaaaaa atccattgtc 180
ataaccattt ttaaaagtca aaaattaaga catccttaat taaaagttt caaatctaga 240
cactaaatgt gtgtgaatgt acaaagaaaa caaaccattg cttatgctgt tatatactag 300
agaaattttg ttttgcttgc tgttttaact tgacagatga aggactttag ttgaacttca 360
tattgtaaga actgttaata aaagttgtca agtaaaaagc gctatatcta aaaagacttt 420
atgaacagtt attctatcaa cttttaaagg ttttaaacct gcccagaaat taccttggta 480
tctgaagttt ccctctgtct cctcgag 507

<210> 1477
<211> 826
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (113)

<400> 1477
gaattcgcgg ccgcgtcgac tctatttttt cctcttgtgc ttcctcttag cactctgaac 60
ttgaaatttt agtgatcaac atcccagaaa ggctttttta aaaatttctt gtnggtgttt 120
ctttttcccc aagaagaaag agccagagag aaaatagcta aagaattatg aatttacttc 180
atagctttaa ttagtggcat acatattagt gtagtgtcta aaagagtttg cttgatcata 240
atcgactgtc ccagtattat gccttacaac acatttcatt atcatacata tgaaataaga 300
catgtgttta taagaacaat ggataagcct gttttctgac aaaatcatta actatgccaa 360
agttctcttt ttttcttttc ctctgttaat aatgaatgct agctttcagt atctttaccg 420
acttcatctc tgaattaatt ttgaccttag tcaaattgaa ttttggtatt agcctacttt 480
ataaaccttt acattaatta agttgcatat aagcacacta agttacacga tttaccaaaa 540
atttcttttc atcatgcatc acaacacttc ccgtgtgttg cataacttaa ggtgcctcca 600
tatctttgga atcaaatttt tggtaagctt caagaaaacc ctagaatcat ccacacaaca 660
aacttaaatc agtttttact tatggaaatt ttagctagag accaggaaat atttaatctg 720
agcccaaatt taataagatt tattactaat gatagtcatg tttggataat agatagtgag 780
attaaggttg tttaattgtt aactgatttg ttaactatcc ctcgag 826

<210> 1478
<211> 365
<212> DNA
<213> Homo sapiens

<400> 1478
gaattcggcc aaagaggcct agaagtagtg tgattaatag catcagagag ataaaagagg 60
agattggaaa tttgaaaagt tcccattcag gtgtcttgga aattgaaaat tcagtagatg 120
atctgagtag cagaatggac atacttgaag aaagaataga cagtctagaa gatcaaattg 180
aagaattctc taaggataca atgcaaatga ccaaacagat aattagtaaa gaaaggcaaa 240
gagatataga ggagagatct agaagttgca acattcgttt gataggaatt ccagaaaagg 300
agagttatga gaatagggca gaggacataa ttaaagaaat aattgatgaa aactttgcac 360
tcgag 365

<210> 1479
<211> 539
<212> DNA
<213> Homo sapiens

<400> 1479
gaattcggcc aaagaggcct acagctctca agaggcagaa tttatataat aatcctttca 60
actctatgag ttacaccagt ccttacagtc caaatgccag tagcccatac agcagtggct 120
tcaattctcc atcctcaacc ccagtgcgac ctcctatagt caaacagctt atacttcctg 180
gaaattcagg taacttgaaa agctcagaca gaaatcctcc actcagtcct cagtcctcta 240

tagatagtga gttaagtgct tcagaattag atgaagattc aattggatcc aattataagc 300
taaatgatgt aactgatgta cagattctag cccggatgca ggaagaaagt ctccggcaag 360
aatatgcagc caccacgtct cggcgcagtt ctggttcatc ttgcaattct acaagacggg 420
gtacttttag tgatcaggaa cttgatgcac aaagtttaga tgatgaagat gacaatatgc 480
atcatgcagt ataccctgct gttaacaggt tttcaccatc accacgcaaa aacctcgag 539

<210> 1480
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (24)

<220>
<221> unsure
<222> (137)

<400> 1480
gaattcggcc aaagaggcct aacnacctca agggtcatgg aagaaaaaga tgaatatagc 60
agcagtgaaa ctactggtga aaagccagag cagaacgatg atgacaccat aaaatctcag 120
gaggaagatc agccaanaat tattaaaagg aaaagaggaa gacctcgcaa ataccctgta 180
gaaacaacgt taaaaatgaa agacgactcc aaaacagata ctggcattgt cactgtagaa 240
caatctccat ctagcagcaa actgaaagta atgcaaacag atgaatccaa taaagaaaca 300
gctaacctac aagaaagaag tataagcaat gatgatggtg aagaaaaaat agtaacaagt 360
gaactcgag 369

<210> 1481
<211> 397
<212> DNA
<213> Homo sapiens

<400> 1481
gaattcggcc aaagaggcct acaacaacaa caacaaaaac ccacaaaaat tagccgggca 60
tggtgacagg cacctataat cccagctact cgggaggctg acgcaggaaa attgcttgaa 120
cgcaggaggt ggaggttgca gtgagccaag atcgtgccac tgcactctag cctgggtgac 180
agagcgagac tccttctcaa aaaaaaaaaa aaaaccccaa agtagacata aacttgtgta 240
ggcaggcagt tataagaaga gtagcatgct aaggggaaca gcatgacaag aaaagtacat 300
aggaacacca gagtttggga agaatgagga aaatgagatt agataagtga gatgggttct 360
aataggaaaa cctgggcatt actcgaggca ggtctag 397

<210> 1482
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1482
gaattcggcc aaagaggcct atgaacaatg gcaactagct ggtctttgct tcagtttctg 60
ggactttgtg cctggtttgg tgctttttgt tctgcttctc cacattggaa acatggacgt 120
catcctcatc atccccatcg ccctcatcat cctcatggat tgacggtgca gcaaagtgat 180
tatcttatta aggagattgt tcagccacag gtcagccaac cacttcctgt gcgtggtctc 240
gag 243

<210> 1483
<211> 631
<212> DNA
<213> Homo sapiens

<400> 1483

gaattcggcc aaagaggcct accgtgcact gttcacatct tggggtctag aggtcaagaa 60
caaagatcac agacaagacg ttactaaacg gacccctgca gtaggtcccg aattgcagaa 120
tcatccaatt ccagcatggt cagcacggag atattcacag aaagaaaccc agcaaagtcc 180
tctctgagcc gctagagtca acaagctttt catacacact atggagagcc cacgccccac 240
ataacccttg agaacacagt tccatgtctt ggctaacacg gctctcaccg ctggcctcaa 300
cacccctggg ccatgctccc tctgctcttc catccccacc acaacgaaga aaggtatgac 360
cgcacgttat atatagtaaa gaagaacttt gaggccgcag gacagggccg cagcagcaag 420
ctctctgggt agtgccttac tgctccaccc acctgagccc tgttccaagt gcaaggagct 480
tcccaaatcc tagagaatga ctgtacttag aaagttttgt tttgtttaag agaaaatggc 540
tttacatgaa tttatgttcc tcatggcaga tatgttacac ttccctctac aacagaaaga 600
caagcccagg tggggcccgg gcatcctcga g 631

<210> 1484
<211> 424
<212> DNA
<213> Homo sapiens

<400> 1484
gaattcggcc aaagaggcct acaacaccct cctagcctta ctactaataa ttattacatt 60
ttgactacca caactcaacg gctacataga aaaatccacc ccttacgagt gcggcttcga 120
ccctatatcc cccgcccgcg tccctttctc cataaaattc ttcttagtag ctattacctt 180
cttattattt gatctagaaa ttgccctcca gaaattggct ggtggaaaaa aatcaaacat 240
gaagattgca gttttgtttt gttttttttct gcttatcatt tttcaaactg actttggaaa 300
aaatgaagaa attcctagga agcaaaggag gaagatctac cacagaaggt tgaggaaaag 360
ttcaacctca cacaagcaca gatcaaacag acagcttgga attcagcaaa caacagtact 420
cgag 424

<210> 1485
<211> 535
<212> DNA
<213> Homo sapiens

<400> 1485
gaattcggcc aaagaggcct agcagaccat taaacagctc gaaaatacaa tcagtgaaat 60
gagtcccaaa gccctagttg atacctcatg ttcttccaac agagattctg ttgcaagttc 120
atcccacata gcccaagagg cctctccccg acccttgcta gttccggatg aaggtcccac 180
tgccctagag ccccctacgt cgataccttc agcttcacgt aagggctcca gcggggcccc 240
acagacgagc aggatgcctg tccccatgag tgccaagaac agacccggaa ccctggacaa 300
acccggcaag cagtccaaac tgcaggatcc ccgccaatat cgtcaggcta atggaagtgc 360
taagaaatct ggtggggact ttaagcctac ttccccctcc ttacctgctt ctaagattcc 420
agccctttct cccagctctg ggaaaagcag ttctctgccc tcttctagtg gtgacagctc 480
taacctccct aatccacctg ctactaaacc atcgattgct cctaaccctc tcgag 535

<210> 1486
<211> 124
<212> DNA
<213> Homo sapiens

<400> 1486
gaattcggcc aaagaggcct acagggaaaa atgttacttt ttgtgtgtgt tttgctttgg 60
gacctttttta ttttggtgtt gcaaaaagta acatattttc atcattgctt catacgacat 120
ggag 124

<210> 1487
<211> 521
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (391)

<220>
<221> unsure
<222> (471)

<400> 1487
gaattcggcc aaagaggcct aggcaactac acaggatgtt gcttaccagg acggagtttt 60
ggtatcttag tactgaagtt agcactatgt ttacatgcaa aagattaagg aaaaaaccct 120
taaagtggac aggtatccaa agttcatttt ctgtgactca tcaaagtgac aaaagacttg 180
taacaacttt gcctggactt ttttcatttt acaacagttc atccattcac agtgattttg 240
ttctctgctc catatttttt aatcccttaa gcatttgatg aaacactctt tagtgctata 300
tgcattttct tacttttgtt aaaaatgtga caattgtcaa aaaatgcact aaaatgtaaa 360
tggagattga acaagttcac tttccagctt nataggcaac tttatacaga cttgaacatt 420
ttctccagtt gtttagtaaa agtgaaagag aaagggtttt tcctgccaca nggatataac 480
ttttttttat ataacaagca taacacacca ctaggctcga g 521

<210> 1488
<211> 354
<212> DNA
<213> Homo sapiens

<400> 1488
gaattcggcc aaagaggcct acgagacgct tggttataaa tacaggaaat aatttacttc 60
aaattaacaa ttaagttttt attttgtaac taaaaaaaaa atttccagaa gggtttgatt 120
ttctaaaatt taagtcattc agtaattact tacttgctgt ttgctcctac tccagccaca 180
aaccgtttcc gaggatacct gtctttaagt tgttttaaag tcattctgtt ctgggctaca 240
acccagacat caccaccttt tccaccttct ccacctaaac gaggataacc cattccaccg 300
gatcctcccc tggtgaagag tcttagctta tcgatgaaat ttccatactt tctg 354

<210> 1489
<211> 579
<212> DNA
<213> Homo sapiens

<400> 1489
gaattcggcc aaagaggcct acccccgtct ggcctagccc atctgcctcc acgtcgcctt 60
gcccaagatg gccagtggcc caggcatggt ggggctcagg ctgcatgtaa ggccacgacc 120
ctgggtcttc tgcaatacaa gtggttttag aaagtgcttc tcggctgact gcacgaacgc 180
ggtgctggtg gagcctgccc tcaccatgag gctgctgaac tccttggtca cgagaaaggc 240
catgagccag ttggtgagga cgcagatgcc tgtcgccacg cccttgacat gcagagggaa 300
gatctctgac atgaggagcc aggggatggg cccccagccc accgcaaagc ctgtgggagc 360
gagacaggca agacaggcat cagggtccgc agggctgggc tcctcagctt gctgcagagc 420
caagagaccc agcttcccag cctgtggggc tgtggggtcc cggatcccag tgtggtccca 480
ccagctccat gctttcctgc caaggcctcg gccagcctct tccctcctca ggcacaggct 540
ctgtctctga gatggggtca caacggggcc tgctccgag 579

<210> 1490
<211> 520
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (432)

<400> 1490
gaattcggcc aaagagccta ggaagttcta tgttttgaac agaattcagc aattagtgga 60
attatgttgt tggttgttag gaagtatata tcatctaggc caggcacagt ggctgacgct 120
tgtaatccca gcacttgggg aggccaaggc gggcggatca cctgaggtta ggagtttgag 180

accagcctgg ccaacatggt gaagccctat ctctactaaa aatacaaaaa tttggctgag 240
ccaccacgcc cagccatgat cagccttttg atgtctcctt ttgtcaaaag aaaattgtcc 300
ttgtgttggt ataaagacat atgctacagg agcagcattc tgaagacttc aatttcaact 360
atggctctac ttcttactag tgaaacccct ggagaagcaa cttaatgtct ctgaacctgt 420
tatctatcat tngtgaaatg ggagataaaa cttgcctgac cctaacccca gcactttggg 480
aggtggaggc gggcggatca cttgaggtca tatgctcgag 520

<210> 1491
<211> 813
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (153)

<220>
<221> unsure
<222> (178)

<220>
<221> unsure
<222> (185)

<220>
<221> unsure
<222> (198)

<400> 1491
gaattcgcgg ccgcgtcgac ctaacatgga tagtaatttg aaaccagaag aggttgttca 60
caaggagaaa cgacgaacag agagagcttg ttagaagaga aacttgtgtt gaagtctaaa 120
tcaaaaactc aaggcaaaca ggtaaaagtt gtngaaacag aattacaaga aggtgccnca 180
aaacnggcaa ccactccnaa accagacaag gagaagaaca cagaagaaaa tgactcagaa 240
aaacagcgta agtctaaagt tgaagacaaa ccttttgaag aaactggtgt tgaacctgta 300
ttagagactg cttcttcttc agcacatagt acacagaagg attctagtca tagagccaag 360
ttaccattag caaaggagaa atataagagt gataaagact ccacttccac caggcttgag 420
agaaagttgt cagatggcca caaaagcaga agcttaaagc atagtagtaa agacataaaa 480
aagaaggacg aaaataaatc agatgacaag gatggtaaag aagttgacag tagtcatgaa 540
aaggccagag gtaatagttc actcatggaa aagaaattaa gtagaaggtt gtgcgaaaat 600
cggagaggaa gcttgtcaca agaaatggcc aaaggagaag aaaaattagc agcaaacact 660
ttgagcactc ccagcggttc ctcccttcag agaccaaaaa agagtggtga tatgacattg 720
atccctgaac aagagccaat ggaaattgat tctgagccag gtgttgaaaa tgtgtttgaa 780
gtatctaaaa cccaagacaa ccgcatcctc gag 813

<210> 1492
<211> 450
<212> DNA
<213> Homo sapiens

<400> 1492
gaattcggcc aaagaggcct aatctaaagt tctgagactt attaaggtat taaagtaaca 60
gttttatttt gagatttagc ttgtgttata tggaattttt cattagcaca atgtgttgag 120
gtgagacttc atggaaagtt actgtaaaaa acaaaaaaaa gtccttactt ccattcagtt 180
taccatcatg gatccaaact aagggtaaag ccagtacatc ctaatatgtg cccaacccat 240
aactttaaat gattaaatga aacacacaac agggagatct attgttaatg tgttaaccaa 300
aattgccagg aattgcccta aaggggaaaa attgtttaat cagtaaatca gtgaggaaat 360
acaagattat aaattagaag tgttgctatg gtgttagctc ttacatccct gaacaacaaa 420
aaagacagtt caaccccaag cattctcgag 450

<210> 1493

<211> 184
<212> DNA
<213> Homo sapiens

<400> 1493
gaattcgcgg ccgcgtcgac ggaaacatct ttgttgtttg attcattccc agggagtgac 60
tttggaatag gggagactag agtttatact tctggtgtag ttactttact tgtgcaaata 120
gacagacatt ttaaaaaata ttatctttta catgagaaga gatattgaga aggctcgact 180
cgag 184

<210> 1494
<211> 656
<212> DNA
<213> Homo sapiens

<400> 1494
gaattcgcgg ccgcgtcgac cagcaaacaa cagtttttac accagtagca agacttccta 60
ttgttaactt tgattatagc atggaggaaa agtttgaatc cttttcaagt tttcctggag 120
tagaatcaag ttataatgtg ttaccaggaa agaagggaca ctgtttggta aagggcataa 180
ccatgtacaa caaagctgtg tggtcgcctg agccctgcac tacctgcctc tgctcagatg 240
gaagagttct ttgtgatgaa accatgtgcc atccccagag gtgcccccaa acagttatac 300
ctgaagggga atgctgcccg gtctgctccg ctactgtctc ctattctcta ctcagtggta 360
tagcattaaa tgatagaaat gaattttctg gtgattcttc agaacaaaga gaacctacca 420
atttacttca taagcaactg ccacctcctc aggtgggaat ggaccgaata gtaagaaaag 480
aagcacttca atctgaggag gatgaagaag tgaaagaaga agatacagag caaaagagag 540
agacccctga atctagaaat caggggcaac tttacagtga gggggacagc agaggaggag 600
acagaaagca gaggcctgga gaggagagga ggctggcaca ccagcaacga ctcgag 656

<210> 1495
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1495
gaattcgcgg ccgcgtcgac cctcgacgga gacgtggcag gcgaagcggc tcagcagggg 60
gtgtttggtg atgaagccga aatagcagct gttgcgggga tggcagccgc agaaggagat 120
gttcttcatc tggaagaaat ggctgcagcg ctggaactca ggccctcctc cgctcagact 180
cagcttgacc ccccgaagag agatctcgag 210

<210> 1496
<211> 760
<212> DNA
<213> Homo sapiens

<400> 1496
gaattcgcgg ccgcgtcgac gatttggggt gttctttttg tttgcttggt tggttggttt 60
ttattggggc ttccccccctc aagttctctg atgggcatga gtcaccctcc ggctgggggt 120
tctcatccgt gtcaatgtcc gagccgcaag cttattgcta agcacagggt acggccccctc 180
tgtgtctcgg ggagcactgg ggatttgaaa atgccagtca gggttgtttc ttacagaatt 240
cgttcctgta acaatagtaa tactaagggc tgcatctcag gctgaccaca gggcaggtgc 300
caagttaagt gttttcatgc actccctctc tcaccacctg ggaggcaggt atgattaacc 360
ccctgcagaa aaactcacag tggggaagcg gtgccggaac ccaaagtcca ggctccaact 420
ccctggacgt gacatgctcg ccagccgggg tacaccctgc acaatgctgg gagcatctcc 480
ttgatgcctc caccatcacc gcctggagcg ctgatccact cagcacattc tggctaagca 540
tctgctgtgt gccaggcccc gtgctgggca gtgatgggaa tgaaagatga gttagatctc 600
atctctgccc ccggggagcc tcccatctgg tgggagacac agacacgtgg atctttgctg 660
gaaagggtaa caaggccatg gaaacccagg caggagcgtt ctagaaatcc atccactttc 720
aagtaggact tccatgcccg taacatccag cccactcgag 760

<210> 1497

<211> 711
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (110)..(111)

<400> 1497
gaattcgcgg ccgcgtcgac cgggcgaacc caccctcgcg atctgtcaag tctgtcccca 60
ggggaggtcc ccctttcggg aggaagtttt taaggggatt tctcaaaatn ncccccgcgc 120
ttccttcact ccttccttag agccggaggt cgcgcgcagg gaccatgtcg gcggagaccg 180
cgagcggccc cacagaggac caggtggaaa tcctggagta caacttcaac aaggtcgaca 240
agcaccccgga ttccaccacg ctgtgcctca tcgcggccga ggcaggcctt tccgaggagg 300
agacccagaa atggtttaag cagcgcctgg caaagtggcg gcgctcagaa ggcctgccct 360
cagagtgcag atccgtcaca gactaaggag atggcaggca ttgacagctt cactccatga 420
aggccatctc tgtttctctc ctccgcttaa ccaagctgtt gtggtttttc agcatagtgt 480
tgtatgttcc attgctagct gtcctgctgt ttaacacagt gttgtatttt ttttctaaat 540
gtacataatt agaaaagaaa ataacaatag gaagctatgt gtatcttctg tgtaaagcag 600
tggcttcact ggaaaaatgg tgtggctagc atttcccttt gagtcatgat gacagatggt 660
gtgaaaacca tctaagtttg cttttgacca tcacctccca gtacgctcga g 711

<210> 1498
<211> 662
<212> DNA
<213> Homo sapiens

<400> 1498
gaattcgcgg ccgcgtcgac ccaaacagag ttatctgggt ccacatccat gtgcccagct 60
attctgtcca atcatagcac aaagacaggt tgcctgtgtc cagaggaca cacagcctca 120
ggcacaccag cccttactta tgagcttgat ggtcatcagc aaagactctc tccctttagg 180
agggttctcc ttgggacttt tcagtgtctt ggcaggaaag agatggcaca cacgaagcac 240
tgattgaaga cagtttaatg aaagaatatt tacagaggtt gggcaagggt atggaaaaca 300
acagggaaca gtaaaacacc cagggatgac aaggcaaggt agctcatgtc tgtaatctca 360
gcactttggg aggccaacac aggcagattg cttgagccca ggagtttgaa accagcctgg 420
caacataagc aagaatctgt ttatctacaa aaaataaaat aattaaaaaa aaattacctg 480
gctgtggtgt tgcacaccta tagtcccagc tactcaggag tctgaggtgg gaggatcact 540
tgagtccagg agtttgaggt tacaatgagc taggatcaca ctactgcact ccagcctagg 600
cgacaaagag agatgctgtc tctaaaaata aaaaacaaaa acaaactgcc caggaactcg 660
ag 662

<210> 1499
<211> 695
<212> DNA
<213> Homo sapiens

<400> 1499
gaattcgcgg ccgcgtcgac gagactcgaa ctcagttcaa taacgtggtg aacaaattga 60
ggctaatgga gcaaaagttt cagcaagtag atgaatggct caaaacagca gaggagaaag 120
ttagtcccag gaccagacgt cagtctaaca gggcaaccaa ggagatacaa ttacatcaga 180
tgaagaagtg gcacgaagaa gtgactgcat acagagatga agttgaggaa gtgggagcta 240
gagctcagga gatactggac gagagccacg tgaacagcag aatgggttgc caggccaccc 300
agctgacttc cagataccag gccctgcttc tccaagtgct ggaacaaata aaattcctgg 360
aggaggagat tcagagtttg gaggaatcag aatcatccct cagttcctat tctgattggt 420
atggctctac tcataaaaac ttcaagaatg tggctaccaa gattgacaaa gtagatacag 480
taatgatggg gaagaaattg aagacgttgg aggttttgct caaagacatg gagaaaggtc 540
acagtttgct gaaatcagcc cgggagaaag gagagagggc tgttaaatac ttggaggaag 600
gcgaggcaga gaggttaaga aaggagattc atgatcacat ggagcagttg aaggaactga 660
ccagcactgt ccggaaagaa cacaggacgc tcgag 695

<210> 1500
<211> 626
<212> DNA
<213> Homo sapiens

<400> 1500
gaattcgcgg ccgcgtcgac cctagaggtt atcctccttg ttagaactca ccagtgattc 60
cctagccagg cacaggccac acctccaaag acgttgctag agggtttcat gcagtttcca 120
tggacatgtt cacctgccca tgtttaggat gaaagtcata aagttagggg aagggaagaa 180
agattaaaga ctgctatagt gaagtaatga gggagaaaga aattaaaagg aaggacacaa 240
agcacatttt aaacatgcat gaatcaaatt actgttgttt atgctgacag tgtttgttgc 300
ttaatgaact aaccacatca agcaaagata ggtttgactt cagggtctgc tggatctggg 360
gactcaaact gtatcatgca tccgactgtc tctgtttctg taaaacattg tcttattctg 420
ccttctattg ctataagtga ataatcaaga ctgggtaatt tataagggag agaggtttat 480
ttagcccaca gttctggaga ccaggaggtc caagattggg cagctgcatt tgatcagctt 540
ctggtgaggg cctcgtactg ggtcttaacc cagcagagaa gaagaagggg aagtgggcac 600
aagcaaagac gtcaagcata ctcgag 626

<210> 1501
<211> 509
<212> DNA
<213> Homo sapiens

<400> 1501
gaattcgcgg ccgcgtcgac acttaaaact cccagtaaat cttggaataa atatattttt 60
ccttcccttg tagtttccat ggtagctgaa tgtgctcaga tgtgagcagt cagagactga 120
cagccatgct ttcctatact tgttcaaagg atcgatggac cgtaaataag ctgccattaa 180
cacatctggt tactgctgta acatgactaa taaaaccgaa cgcctgttcc ccttacccgt 240
gtgggggaca cgcagatgag tgaattggaa tgtccagcag agttaccctc ccaattatat 300
gttcatttg tatattttt ggtcgggga aaaattgacc tgcagtaaaa aaacctttga 360
ccatttttat gtccattgga tactttcctt tttatcatct taaaaaaaga taactagtac 420
taatcattgt agtggcctaa gtgtgattta actcttgaag tcacaccctc cgaaagatga 480
gtagaaacca gcaccagcac agtctcgag 509

<210> 1502
<211> 770
<212> DNA
<213> Homo sapiens

<400> 1502
gaattcgcgg ccgcgtcgac gaaatgatgg aggaatccag tggaccatat tctgatggaa 60
cagaaaattc acaactaaat gtgaagataa gtggcatgga gagaaaatca aatggaaaaa 120
gagattcatt tttggcacaa acaaagaata aaaaagaaaa tatgaaacca gcagccaaac 180
tgaaacttga atcttcgtct ttaaaagtaa agggtgaaat tcttttggaa gaggaaaagt 240
ctactgactt tgtgtttata cctccagaag gaaaagatgc aaaggaaaga atattaactg 300
atcatcaaaa agaagttctc aaaacaaagc ggtgtgatat tcctgccatg tataataatc 360
tggatgtttc ccaagatacc ttatttactc agtatagtca ggaagagcct atggaaattc 420
ctactttaac cagaaaacca aaggaggatt ctaagatgat gattacggag gagcaaatgg 480
acagtgacat tgtcattcct caagatgtca cggaagactg tggtatggct gaacatcttg 540
aaaagtcctc cctttcgaat aatgagtgtg gttctcttga caaaaccagt ccagaaatgt 600
caaacagtaa taatgatgaa agaaaaaaag ctttaatttc atcaaggaaa acatcaactg 660
aatgtgcatc tagtacagaa aattctttcg ttgtcagcag tagttcagtt tctaatacca 720
ctgttgctgg aactccccca taccctacaa gtcggaggca tgaactcgag 770

<210> 1503
<211> 870
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (147)

<220>
<221> unsure
<222> (168)

<220>
<221> unsure
<222> (182)

<220>
<221> unsure
<222> (336)

<220>
<221> unsure
<222> (339)..(340)

<220>
<221> unsure
<222> (386)

<400> 1503
gaattcgcgg ccgcgtcgac cacattccag aagctcacca ggctacttta ttggatggta 60
aacaaggaaa ggtaatcatg cctcttggaa gtaagttaac gggcgtgatt gtggaaaatg 120
agaatattac caaagaaggt ggcttantgg acatggccaa gaaagaanat gacttaaatg 180
cngagcccaa tttaaagcag acaattaaag caacagtaga gaatggcaag aaggatggca 240
ttgctgttga tcatgttgta agcctgaata cagaaaaata tgctgaaact gtcaaactta 300
agcataaaaa gaagcccagg taaagtaaaa gacatntcnn ttgatgttga aagaaggaat 360
gaaaacagtg aggtagacac cagtgntgga agtggctctg caccctctgt tttacaccaa 420
aggaacggac aaactgagga tgtggcaact gggcctagga gagcagaaaa gacttctgtt 480
gccactagta ctgaagggaa ggacaaagat gtcaccttaa gtccagtgaa ggctgggcct 540
gccacaacca cttcttcaga aacaagacaa agtgaggtgg ctttgccttg caccagcatt 600
gaggcagatg aaggcctcat aataggaaca cattccagaa ataatcctct tcatgttggt 660
gcagaagcca gtgaatgcac tgtttttgct gcagctgaag aaggtggggc tgttgtcaca 720
gagggatttg ctgaaagtga aaccttcctc acaagcacta aggaagggga aagtggggag 780
tgtgctgtgg ctgaatctga ggacagagca gcagacctac tggctgtgca tgcagttaaa 840
atcgaagcca atgtaaatag cgtgctcgag 870

<210> 1504
<211> 713
<212> DNA
<213> Homo sapiens

<400> 1504
gaattcgcgg ccgcgtcgac gtgaacaaat attagtataa gcatcagatg tgcaaaattg 60
ggtctaacaa gaacactgtc cttggggcct tcatacaaag aaaaatgcac tgaaggccgg 120
gcgcggcagc tcacgcctgt aatcgcagca ctttgggagg ccaaggcagg tggatcactt 180
gaggtcagga gttcaagact agcctggcca acatgatgaa gccccatctc tagtaaaaat 240
acaaaaatta gctggaagcg gtggtgcaag cctgtagtcc cagctactcg ggaggctgag 300
gttggagaat cacttgaacc ctagaggcgg aggttgcagt gagccgagat cgtgccactg 360
cactccagcc tgggcaacag agcgagactc catctcaaaa taattaaaaa aaaaaaatag 420
aaaaatgcaa tgaagtgtta ttgagcgttt ttaagggaga aggcaaggat ggcacaccca 480
gctcggtcac ttgtgcatcc agaagagatg gaaggtgttt caagtgaagg aaatcatatg 540
agtaggggga ggaggtggca aatatgcctg cgtatccaca gaactcaccc accgtgtgtg 600
gagtgaggac tgccacgtgg gcgtggtggg gttgcatgga tcgacttggg tgggcaagtg 660
gaggaaggcc tgagatccta cgaacacaga ggcagtcacg aagtggtctc gag 713

<210> 1505

<211> 682
<212> DNA
<213> Homo sapiens

<400> 1505
gaaattctca ggcagtcaga ctgtcttagg caaatcttga taaaatagcc cttatccagg 60
tttttatcta aggaatccca agaagactgg ggaatggaga gacagtcaag ggttatgtca 120
gaaaaggatg agtatcagtt tcaacatcag ggagcggtgg agctgcttgt cttcaatttt 180
ttgctcatcc ttaccatttt gacaatctgg ttatttaaaa atcatcgatt ccgcttcttg 240
catgaaactg gaggagcaat ggtgtatggc cttataatgg gactaatttt acgatatgct 300
acagcaccaa ctgatattga aagtggaact gtctatgact gtgtaaaact aactttcagt 360
ccatcaactc tgctggttaa tatcactgac caagtttatg aatataaata caaaagagaa 420
ataagtcagc acaacatcaa tcctcatcaa ggaaatgcta tacttgaaaa gatgacattt 480
gatccagaaa tcttcttcaa tgttttactg ccaccaatta tatttcatgc aggatatagt 540
ctaaagaaga gacacttttt tcaaaactta ggatctattt taacgtatgc cttccttggg 600
aactgccatc tcctgcatcg tcatagggtt aattatgtat ggttttgtga aggctatgat 660
acatgctggc cagcacctcg ag 682

<210> 1506
<211> 668
<212> DNA
<213> Homo sapiens

<400> 1506
gaattcgcgg ccgcgtcgac gtctcactct gttgcccagg ctggagtgca gtggtgtgat 60
ctctgctcac tgcaacctcc acctcccagg ttcaagtgat tctcctgcct cagcctccca 120
attagctggg attacaggcg tgcaccacca cactcagcta atttttgtag ttttagtaga 180
gacggggttt tgccatgttg gccaggctgg tctcaaattc ctgacctcaa gcgatctacc 240
ctccttggcc tcccaaaatg ctgggattac aggcgtgagc catcgtgccc agccttcacc 300
cggtagttta atgtggcttt gtagaagaat cagtatttcc ctccttagag tccctctgtg 360
acttactttc taacatagct ccactgtatc tcacaggacc ccggatgccc cagcccccat 420
ccttcccaaa ttcatccgct tcttcccctt ctcttcgggt ttactctgct ttagccgtgc 480
ggatcttctt tccattatgg aatatgtccg gactactccc acccgtcaga ttttgtactt 540
gtggttccca ctagaagcat ccagaatgtt tttcctctct accctccccc attctttcat 600
tggatgacct tattctcatt cttctggtaa taatcagggt taacacctct ctgaccacct 660
cactcgag 668

<210> 1507
<211> 636
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (48)

<220>
<221> unsure
<222> (137)..(138)

<220>
<221> unsure
<222> (147)

<220>
<221> unsure
<222> (159)

<220>
<221> unsure

<222> (161)

<400> 1507
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tctctatact ctgaccacaa gaccatttaa agaaatgatt catcggtttt ggtataacta 120
cagacaaaga aaatctnntg gacagcnaag gtcagaaanc ntatgctcca tcattcctct 180
gggtggaaat gtggccactg caggagatgc cacctgagtt aatgaagccg gaccttttca 240
catacccctg tgaaatgtca ctgatttctc aatcaacgag actcaattcc tattcatgac 300
tgactctgaa attcatttct tcgcagagaa tactgtgggg gtgcttcatg agggatttac 360
tggtatgaaa tgaataccac aaaattaatt tataataata gctaagataa atattttaca 420
aggacatgag gaaaaataaa aatgactaat gctcttacaa agggaagtaa ttatatcaat 480
aatgtatata tattagtaga cattttgcat aagaaattaa gagaaatcta cttcagtaac 540
attcattcat ttttctaaca tgcatttatt gagtacccac tactatgtgc atagcattgc 600
aatatagtcc tggaagtaga cagtgcagaa ctcgag 636

<210> 1508
<211> 837
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (754)

<220>
<221> unsure
<222> (806)

<400> 1508
gaattcgcgg ccgcgtcgac aaatcctcaa gctggccttt aataattttt atgtccagca 60
ttttttttcat gcaattcatt tctaaggttc aatttttttc ttcctaaagt gtcacctttg 120
gtagattttt cttcagggtc tgcaattagt aaattttctc attgattaca tatttgaaaa 180
ggtctgttag tcttgctggg tatagaattc aagatgatga ttacattcgt ttgctacttt 240
gaagatgtta ttttctcaaa ctattagatt ctggttctat taaagactgc tgttggtcta 300
acagtttctc tgaggtaatc tgcctttgat ttatgcttgc ttttaagatt ttctccttgt 360
ctgcgatgcc ttacatgttc actataatgt gggtcggggt attgatttat tacttgtctt 420
gctaagggct gattgactgt cataacccta gaatttatca tttctggaaa actgcaaatt 480
tggataaatt attcaagttc ccgtgttagt ccacttctca aaacccttca gtgtctccct 540
catttactgc cagtattact actcaggact ggcatgatct agcccctgca catttctgta 600
attaagtttc ccattaattc catttctgtc tgccaggaaa tccccatgac tcaaactggt 660
gatgctattt cttgttcata actcagctca actttaccta ccctctaaag cctttcctga 720
aacctgttct tctccctagc cactctctgt ttgngtaccc actctttcct gctcataggt 780
ctgttagtta ttgcatttat ctattnatgt gtaaaatttt ccccctctgg actcgag 837

<210> 1509
<211> 125
<212> DNA
<213> Homo sapiens

<400> 1509
gaattcggcc aaagaggcct aattttatgc atttgttttt cttatttttt tggttgtctc 60
agttatctcg catgttattg agttttttta agatgattgt tttgaattgt caggcaattc 120
tcgag 125

<210> 1510
<211> 760
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (349)

<400> 1510
gaattcgcgg ccgcgtcgac cgactccagc atccagtgtc accatcatgg ctacagatac 60
agcccagcag agcacagtcc ccacttccaa ggccaacgaa atcttggcct cagtcaaggc 120
gaccaccctt ggtgtatcca gtgactcacc ggggactaca accctggctc agcaagtctc 180
aggcccagtc aacactaccg tggctagagg aggcggctca ggcaacccta ctaccaccat 240
cgagagcccc aagagcacaa aaagtgcaga caccactaca gttgcaacct ccacagccac 300
agctaaacct aacaccacaa gcagccagaa tggagcagaa gatacaacna actctggggg 360
gaaaagcagc cacagtgtga ccacagacct cacatccact aaggcagaac atctgacgac 420
ccctcaccct acaagtccac ttagccccg acaacccact tcgacgcatc ctgtggccac 480
cccaacaagc tcgggacatg accatcttat gaaaatttca agcagttcaa gcactgtggc 540
tatccctggc tacaccttca caagcccggg gatgaccacc accctaccgt catcggttat 600
ctcgcaaaga actcaacaga cctccagtca gatgccagcc agctctacgg cccccttcctc 660
ccaggagaca gtgcagccca cgagcccggc aacggcattg agaacaccta ccctgccaga 720
gaccatgagc tccagcccca cagcagcacc aactctcgag 760

<210> 1511
<211> 471
<212> DNA
<213> Homo sapiens

<400> 1511
gaattcggcc aaagaggcct acttctctag acaaagaggg tctgtcagca ttaagctggg 60
cttgtctgaa aggtcacagg gcagtggtcc agtatctggt tgaagaagga gctgcaatag 120
accagacaga caagaatggc cgcacaccct tggacctggc tgccttctat ggcgatgccg 180
agactgtgct gtacctggtg gagaagggag ccgtgatcga gcatgtggac cacagcggga 240
tgcggccctt ggacagagcc atcggctgcc ggaacacatc tgtagtggtg gcgctactca 300
gaaagggagc caagttagga aatgctgctt gggcgatggc cacttccaaa cctgatatct 360
tgattatact tttacagaaa ttaatggagg aaggaaatgt gatgtacaaa aaagggaaaa 420
tgaaagaggc agcccagagg taccagtatg ccttaagaaa gtttcctcga g 471

<210> 1512
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1512
gaattcgcgg ccgcgtcgac gttaattcta gtactgtact atcatgttaa cttttttttgg 60
tgacatagcc tggtactagt gataagttta tttcatcgat tctctcattt gtttctgaca 120
gcacagagag atgtatatct tctttctttc tttatttttt ttgagacaga gtctcactct 180
gtcgcccagg ctggagatca gtgtgacacg atcttggctc actgcaacgt ccacctcccg 240
gaatctcgag 250

<210> 1513
<211> 620
<212> DNA
<213> Homo sapiens

<400> 1513
gcagttgacc tagaccagtt ccagtatttc cagtttgacc gtgtttgacc tacactgagc 60
ttcggtgcct cagtggtcat aattttagca agtggaccta taggaagcaa ccctgggagg 120
gaccgtcctt ctgcagaggc ctgcgggcat tgaggctatc aatccccagg gcttggggag 180
caggagggga gggcaccaag tgctcttact ctcctgagct ccttttgatg cgtaagcttt 240
gtttttggcc ctctttgaag gcagggccaa acttttctta gtgcctctca ccttagggtg 300
gccctccagg gaaggtgctc cttgaatggc tggattggcc ctgcccaccg tcaaactgct 360
acatgtagga atagctgatg aggaaataca caaggcctca gtgccccttg gcctctttac 420
aaaaggagaa gttggaaggg gattgtggga ggagcccctg gggggcctggt ctgtcctcca 480
ccagaacttg gagttgctgc cagcagagga tctgtgcctc agctgaagac tagctccgga 540

atgtcatagg ggtgtgactg tgtaggcctt ctcctcctcc tcgtttctgt ggcatggcac 600
aggttgcctg gttgctcgag 620

<210> 1514
<211> 236
<212> DNA
<213> Homo sapiens

<400> 1514
gaattcgcgg ccgcgtcgac cccatttaaa aagttatttt ttattattat tgagttcctt 60
atagtttcta gatataagcc cccctatcat acatgcttta cagaagtttt tacccattct 120
gtggaatata tatattttta tttctttgca tactctttct gccccaccca catcctcttt 180
ctgggacact gatgaccaaa atgttgaatc ttttactatt gtccccgagc ctcgag 236

<210> 1515
<211> 320
<212> DNA
<213> Homo sapiens

<400> 1515
gaattcgcgg ccgcgtcgac atgaggtcct gcctgtggag atgcaggcac ctgagccaag 60
gcgtccagtg gtccttgctt ctggctgtcc tggtcttctt tctcttcgcc ttgccctctt 120
ttattaagga gcctcaaaca aagccttcca ggcatcaacg cacagagaac attaaagaaa 180
ggtctctaca gtccctggca aagcctaagt cccaggcacc cacaagggca aggaggacaa 240
ccatctatgc agagccagtg ccagagaaca atgccctcaa cacacaaacc cagcccaagg 300
cccacaccac cggagacagg 320

<210> 1516
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1516
gaattcgcgg ccgcgtcgac attctagacc tgcctcggtc acccccctcc tgccttggtc 60
acccccctcc tgcctgtgct ctgcctcagt tacccccctct cctgcccatg ttctgcctgt 120
tacaccaact cctgcccttg gtcaccctgc tcctgcctgt gctcggcctc agtcaccccc 180
ctcctgcctc agtcagcccc tctcctacct atgctctgcc ttggtcaccc cctctcctgc 240
ctcagccacc ccctctcctc gag 263

<210> 1517
<211> 729
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (33)

<220>
<221> unsure
<222> (36)

<220>
<221> unsure
<222> (96)

<400> 1517
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tgagtccaaa tctctcaggg aagaggctca gcatangtcc tgcgtcctct aagtcagtcc 120
aactgggact gggaggacca gggtgctgag atgcggcaga gacaaggcct aggacttgga 180

agtcttacta gaacatggta gctccgcacc ccgcatagcc acgtggctgg ggtgtgagag 240
caaagaggca ggctgcaaga caagggagtt tgaacacgtt gtcgttgaaa gaattaaacc 300
aggtgtgtgc ctgagcacct ttagcccact gcctggcttc agaaatgcaa gcttgcgtgc 360
cgtcccaccc aggcccttaa ataatacaag ttaattgaaa gagtttaatt tgaattaatg 420
agattctgtt aaaatattgt taacagttaa gtagataatt attctatgaa caaaacaaat 480
ggctcctgca gggtctatgt caatgaatag acaccttcat ttacagttgg gatccttcaa 540
ctccaacaga atgatgtaaa tctgttattt gcagaggatt aattaagagg gaaatgaata 600
aaaacagtaa caaacaggtc cccgtctaga tgcagcgggc ggttgacagc aggctctcga 660
ccgttgtttc gatgcaaagt gtaaataatg cattttgccc ttacctttgc cttcaccgac 720
taactcgag 729

<210> 1518
<211> 183
<212> DNA
<213> Homo sapiens

<400> 1518
gaattcgcgg ccgcgtcgac gccagcagtt cgcagcatgg actcggtatt ggtatttgtt 60
acaggtaatt ggcttctgct cacattaatt aatttattgg aggctgggtc tctctctttc 120
acccaagctg cagtgcggtg gtgccatcat agctcactgc agcctcaaac tcctgggctc 180
gag 183

<210> 1519
<211> 692
<212> DNA
<213> Homo sapiens

<400> 1519
gctcgatgtc gctgttcttg caggtcttct gcatggcctc ctgcttgctg ctttcaccat 60
tgctggtgga tggcatctca tcactggccc atttagagaa ctcaggtgtg atgcgcgtgc 120
tgggagggcc gccatttagg actgcgcccc gaagtgcctc tctctccttg gcttcaccag 180
gctcctcgcc tgtgcagggg atgacatcag cctctgtgta ttgtggcttc ccatactcca 240
gagtgtcatc cccatccaca tccaagtcag catcactgtc cgggttctct ttgccgctgc 300
acatgatgaa gccagagcct cggaagccac cttccaggag agtggtggcc cgtatccgct 360
tctgtccaca ccactcatac tcctcaaagc ggttgttgtt ctcatgctcg atgtccacag 420
catcatcctc agccatgcag gagccttccc tctgcccttc atcttgcttc ctccgtttca 480
ttttcccaat ccgagcattc agtcgggtct gccggttggc tcgtactcgc agaaaggtct 540
ggtatctgtc tgaatggtgg aggtcatcgg tggcagatga gtggggtgat gccgttggag 600
actctccttc cctcttgatg gaagcagaca acaggaggga ctttggggtg cctggagcca 660
tggcatcctt cagaagggaa ttcttgctcg ag 692

<210> 1520
<211> 277
<212> DNA
<213> Homo sapiens

<400> 1520
gaattcgcgg ccgcgtcgac ccactcccgg ctaattttgt atttttggta gagatagggt 60
ttctccatgt tggtcaggct ggttttgaac tcccgacctc agatgatcca cctcagcctc 120
ccaaagtcct gggattacag gtgtgagcca ccgtgccggg cctttctctt ttttttttt 180
ttttttttt aagagactaa gtcttgctct gtcaccgaag gtggagtgcg gtgacagcat 240
catagttcat tgcagtctca aacacccagg tctcgag 277

<210> 1521
<211> 261
<212> DNA
<213> Homo sapiens

<400> 1521
gaattcgcgg ccgcgtcgac caaggatatt agaacgtgtt ggttccgcgt gcttccgtct 60

tgagttatgt gctgctattg tcggatattt tgtcttagat gtacgtactt tcctgttcat 120
tgtggtatgt gtaatttgcg ttactttgaa ttttccacgt ttttactttc tttgtctctc 180
atcacttact gcttttggga cccccccat cggggttcac attccctctc cctagagcac 240
actcccttgg atttcctcga g 261

<210> 1522
<211> 174
<212> DNA
<213> Homo sapiens

<400> 1522
gaattcgcgg ccgcgtcgac atttaattta catatgtcct tggcatccac aaatattgct 60
tctcctttca accagcatgc caccсttcca gccattcaca tatgtattca ttcattcatt 120
catttattct ttcattcagt caataaatat ttattgagta gtaatgcact cgag 174

<210> 1523
<211> 512
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (27)

<400> 1523
gaattcgcgg ccgcgtcgac gacggangca gctttctagg gctggaagtc tcaaatagaa 60
ctcacctgtt ccccaaccag gggtccccag gttcagctca attgttatca tgggtaccag 120
ccaggaagct gtttgtggga aggatgggac ttaactcagg agtgttttag gtatggacat 180
gtgtcagtat tcacaaaaca ggcaatatat tcattataga tgcaatcatg aaacttccct 240
ccagagaagg ctcacatctc ccctttcacc taggaagctc cttagcttga aggcccacca 300
cggtctgatc ccagcctcca ccccagccca aatgaactcc catttaattc cttggacatg 360
ccatgacgtt cacggctctg catacttgcc aataactgtt cttccagcct acctgtcttg 420
ctccctgccc cacctgtcct tgtcaaagga acgataactc ttcagctttg tcaagtcctt 480
gtttactcct gttctcccca ccaggactcg ag 512

<210> 1524
<211> 422
<212> DNA
<213> Homo sapiens

<400> 1524
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagaccggc ctccacccaa 60
taagcaaact ggagattcct cagcctctcg tggacaccca catctcattc ttctcacagc 120
agagaagctc tcccttcagc ctgagctgtc ttctttctgc tgcagtgcag cctgctccct 180
cctaccctgg cctcaaggaa ggtgggaaac atcttctgca tttcaaagtc ctcactttga 240
cttatttggc cttcatcttg gcatggaagg tggcaggcag aatggaaata ctccccccaa 300
acaaaacaga tattcttgcg tgtgtaaggg cagaagggac aagctctcta tcccatgaga 360
ctaggggccg gagcccacct gcctttcccc acaacttttc ctgctcaaac cccgtcctcg 420
ag 422

<210> 1525
<211> 108
<212> DNA
<213> Homo sapiens

<400> 1525
gaattcgcgg ccgcgtcgac tgaaagaatg cggcttgctg ttgtaattcg tgctgtagtt 60
gcatctgaat ttgtgctggt gactgtggtg ggtgatgtgc aggttgag 108

<210> 1526

<211> 124
<212> DNA
<213> Homo sapiens

<400> 1526
gaattccttc gggtcgactt cccaactcaa ttacagaact gaacagatct ccacacttac 60
ttttcagtga tagtcattgc aaaactacac tttaagaaca acttggaaga tgctttttct 120
tctt 124

<210> 1527
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1527
gaattcgcgg ccgcgtcgac aaaggctgca catcaacaac aacaagatca agtcttttcg 60
aaagcagact tttctggggc tggacgatct ggaatatctc caggctgatt ttaatttatt 120
acgagatata gacccggggg ccttccagga cttgaacaag ctggaggtgc tcattttaaa 180
tgacaatctc atcagcaccc tacctgccaa cgtgttccag tatgtgccca tcacccacct 240
cgacg 245

<210> 1528
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1528
gaaaagtatc tcatatatag tatgtcccaa atagaatcat tgagttcccc ctttccctcc 60
ctaaggcttc accatcagct ttgtgacttt ctatttctac ccatttgttc tgaactctac 120
ctgtcagcct caatctctct tgttctttca ctgtccaaat ctgccttccc tccctcatcc 180
aagacatgtt tgattcttgt ctggactctt gaaacaggct tgtacttcac acttctacct 240
tcactgttgc ttctgcagtc aatcgatccc ctcgag 276

<210> 1529
<211> 139
<212> DNA
<213> Homo sapiens

<400> 1529
gaattcgcgg ccgcgtcgac atccggctta catttttatg tttttaccaa ctttcatttt 60
tatcatctgg cttacatttt tacttttact atcagactta gatttcttaa aaaagagaga 120
gtttaggagt attctcgag 139

<210> 1530
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1530
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagaaac 60
ccctcacaat catggcaagc caacgccact tatccagtga accactatca cgaaaaaaac 120
tctacctctc tatactaatc tccctacaaa tctccttaat tataacattc acagccacag 180
aactaatcat attttatatc ttcttcgaaa ccacacagct cgag 224

<210> 1531
<211> 586
<212> DNA
<213> Homo sapiens

<400> 1531

gaattcgcgg ccgcgtcgac acagaaacta ccatttgaca ccacggacct cattacatac 60
agcatctagt acaatgtaca gtaataccaa tccattacgg agtaattctt ctcctcattt 120
tgcatcatca aaccaattga gattatcaca aaaccaaaac aattaccagc tacaggaccg 180
cactcagttc agtgaccgag acttagccac ccttaagaag tattgggaca atggcatgac 240
cagcctgggc tctgtttgta gagagaaaat tgaagctgtg gcaactgaat taaatgttga 300
ctgtgaaata gttcggactt ggattgggaa tcgaagaagg aaatatcgtt taatggggat 360
tgaagttcca cctccaagag gaggccctgc tgatttctct gagcagcctg agtctggttc 420
tttatctgca ctcacaccag gagaggaagc tgggcctgaa gtaggagagg ataatgacag 480
aaatgatgaa gtatccatct gtttgtctga aggaagctct caagaagagc ccaatgaagt 540
tgttccgaat gatgcaaggg ctcataagga agaggacccc ctcgag 586

<210> 1532
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1532
gaattcgcgg ccgcgtcgac atgaaggaac aggagaaagg agaagggagt gatagtaagg 60
agagtccaaa aaccaaatca gatgaatcag gggaggaaaa gaatggagat gaggattgcc 120
agcgaggcgg gcagaagaag aaaggaaaca aacacaagtg ggttccatta caaatagaca 180
tgaagcctga agtgcccaga gagaaactgg cttcacgccc cactcgccca ccggaaccac 240
tcgag 245

<210> 1533
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1533
gaattcgcgg ccgcgtcgac ggcagaccca tctatttgtt gcttctgccc tgctatagac 60
agagaatcag acaaccaaac tcactggaat gatgtgtaag gaaggagagg cagcctttga 120
aggggtgaca ggtacaatcc tgttaacttg tttcatatct ctgagcttgc tgctgtctgt 180
tctggctgct gaaccccacg ctctcgag 208

<210> 1534
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1534
gaattcgcgg ccgcgtcgac caagccattg tatttatttt cctaaatatt gataatttat 60
aacctttgat tatctagtga gttgttggcc atttcttatt ttaaagtatt tcagtgtata 120
ataattaaat atataatttt ttcatgtgtt ttgcaaattt ttttatgtgc tttgcaaata 180
ttttttccca tctcttcatt tgtcgtttga ttctgtttat gctgttcctc cccccactcg 240
aggca 245

<210> 1535
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1535
gaattcgcgg ccgcgtcgac ggagcaactt catataatgc aagaacagca gaaatctttg 60
gatataggaa atcaaatgaa tgtttctgag gagatgaaag ttacaaatat tgggaatcag 120
caaattgaca aagtttttaa caacattgga gcagaccttc tgactggcag tgagtccgaa 180
aataaagagg acgggttaca gaataaacat aaaagagcat cacttacact tgaagaaaaa 240
caaaaattag caaaagaaca agaacaggca ctcgag 276

<210> 1536
<211> 107

<212> DNA
<213> Homo sapiens

<400> 1536
gaattcgcgg ccgcgtcgac aatatagcaa ggagagccaa agctatttct agttaattca 60
ttatgcataa tatagcaagg agagccaaag ctaagacctg cctcgag 107

<210> 1537
<211> 232
<212> DNA
<213> Homo sapiens

<400> 1537
gaattcgcgg ccgcgtcgac gctgctttct gctaatgctt gatccatctc ctcttggctc 60
ttctccatat ctagttcacc ttcctctagg acatcactga agaggtcatt aattactttc 120
gaactattga tatcatcatc atccacactc atctcaattt cacgtatcac ttcaattttc 180
tgctcaacct ttgggtctga tgttactttt aaggatttgt cctcttctcg ag 232

<210> 1538
<211> 260
<212> DNA
<213> Homo sapiens

<400> 1538
gaattcgcgg ccgcgtcgac accatgatga aacgggcagc tgctgctgca gtgggaggag 60
ccctggcagt gggggctgtg cccgtggtgc tcagtgccat gggcttcact ggggcaggaa 120
tcgccgcgtc ctccatagca gccaagatga tgtccgcagc agccattgcc aacgggggtg 180
gtgtttctgc ggggagcctg gtggctactc tgcagtccgt gggggcagct ggactctcca 240
catcatccaa caccctcgag 260

<210> 1539
<211> 406
<212> DNA
<213> Homo sapiens

<400> 1539
gaattcgcgg ccgcgtcgac cctgaatatc cagaatggtg tttctgaagt tcttctgcat 60
gagtttcttc tgccacctgt gtcaaggcta cttcgatggc cccctctacc cagagatgtc 120
caatgggact ctgcaccact acttcgtgcc cgatggggac tatgaggaga acgatgaccc 180
cgagaagtgc cagctgctct tcagggtgag tgaccacagg cgctgctccc agggggaggg 240
gagccaggtt ggcagcctgc tgagcctcac cctgcgggag gagttcaccg tgctgggccg 300
ccaggtggag gatgctgggc gcgtgctgga gggcatcagc aaaagcatct cctacgacct 360
agacggggaa gagagctatg gcaagtacct gcggcgggag ctcgag 406

<210> 1540
<211> 618
<212> DNA
<213> Homo sapiens

<400> 1540
gaattcgcgg ccgcgtcgac ggatgaggaa aaacaagggc aagtcactca agaccacaca 60
gtgactgagt ggtgctgaaa ttcaagcctg ggtctgtgag tccagaactc cagcttctca 120
ggtcacttcc tgatcgcacc tggagctggg ctctgctgcc ctcagtggag tgagcacccg 180
cctgctttga tccaagctga gattcccgtg ggccctctc tcacaggtgt gggtcctaca 240
gtgcaggttt tgctacttcc acaaactcag ccaccactga gtgagcattc cctgtgtgtc 300
ctcaccggcc cctttcttgg ttttgggtgg caaagcttct tatctgtgtg tagcaagagc 360
agcctgtttg ggctactgtc cccaagagag tggggctgca cagcaaagta gggcatccgg 420
ttgtcctacc tcaggacagg tgaaaggcag acgggcttgt gagaaaggag gacactttgg 480
ccaaatctga catctatctg gcccctgcgt catttcgcca gtccctcggg gagtcagtgc 540
ttaggtcttt cacgtggatc tcacttccac gcctgcctgc cacatcccca gccccgctaa 600

tcacggaaga acctcgag 618

<210> 1541
<211> 437
<212> DNA
<213> Homo sapiens

<400> 1541
gaattcgcgg ccgcgtcgac gagacaccca tccctacgcc agcttgagcc gtgcactgca 60
gacacaatgc tgtatttctt ctcccagtca cctgatgagc cagcagtata gaccatatag 120
tttcttcact aaattgactg cagatgagct gtggaaaggc gctttagcag agactggtgc 180
tggagcaaaa aaaggaagag gcaaaagaac taaaaagaag aaaagaaagg atctgaacag 240
gggtcagatc attggtgaag ggcgttatgg ttttctatgg cccggactga atgtccctct 300
tatgaaaaat ggagcagtgc agaccattgc ccaaagaagc aaggaagagc aggagaaggt 360
ggaggcagac atgatccagc agagagaaga gtgggaccga aagaagaaga tgaaggttaa 420
acgggagctt cctcgag 437

<210> 1542
<211> 544
<212> DNA
<213> Homo sapiens

<400> 1542
gaattcgcgg ccgcgtcgac ctggaatcat gagcaacaat ggagcagacc taacctttgg 60
ttacatctcc tgttttgtag ctatcctttt gtttggctca aattttgtgc cacttaaaaa 120
atttgatact ggtgatggaa tgtttctcca gtgggttctt tgtgctgcca tatggttggt 180
tgccttggtt gtcaatctga tattacattg tccaaagttt tggccttttg caatgcttgg 240
gggctgcatt tgggcaacag ggaacattgc tgttgtccca attatcaaaa ccattggttt 300
aggccttgga atcttaatct ggggatcatt taatgcctta actggctggg caagctcaag 360
gtttggctgg tttggattgg atgcagaaga agtatcaaat ccgctgctaa attacattgg 420
agctgggcta tcagtagtaa gtgctttcat atttttgttc atcaaaagtg aaataccaaa 480
taacacgtgt tccatggata ccactccatt aataacagag catgtgatca acacaacccct 540
cgag 544

<210> 1543
<211> 555
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (58)

<220>
<221> unsure
<222> (80)

<400> 1543
gaattcgcgg ccgcgtcgac agaaccacat ttttttggca cacacacaca cacatacngg 60
tgtatagata tatatatatn gtttataggc aagaaaacca acttttgaaa gaatatatct 120
ggctcaaaat ttataaggaa aaaacattac ggagttctgt ttttttctga ttagttgtgc 180
ggtctgaaag tagaagtgga tatggagaaa attgcagctg agattgcaca ggcagaggaa 240
caggcccgca aaaggcagga ggaaagggag aaggaggccg cagagcaagc tgagcgcagt 300
cagagcagca tcgttcctga ggaagaacaa gcagctaaca aaggcgagga gaagaaagac 360
gacgagaaca ttccgatgga gacagaggag acacaccttg aagaaacaac agagagccaa 420
cagaatggtg aagaaggcac gtctactcct gaggacaagg agagtgggca ggaggggggtc 480
gacagtatgg cagaggaagg aaccagtgat agtaacactg gctcggagag caacagtgca 540
acagtggagc tcgag 555

<210> 1544

<211> 457
<212> DNA
<213> Homo sapiens

<400> 1544
gaattcggcc aaagagccta ggctactggt catagtttaa aataaacatg ttcataattc 60
tcaagattaa agtttatttc aatttccttg agtgtattat attttgcttt ttgtttgttt 120
acattttgac tatctttctt gataaagatt cgctctccag ctttataatt tttttactga 180
ggaaactcat tttgatggga ggtgttttgt tttagtttct tttccatcca cagatgtact 240
cctcatcaga tgttttggaa gttccctcag tctggctctt ggagtccatt tcagaagtag 300
atattttgct ggacacctaa ggttcttgtc tcatagagat atttcacttc tgttccctaa 360
atcaagaagg ttgtcctcca agtttttagt tacacagttg tctctgtttc ttccattaac 420
gcctaaaccg tcgattgaat tctagacctg cctcgag 457

<210> 1545
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (171)

<400> 1545
gaattcgcgg ccgcgtcgac tcttgcaaaa atgtccttct cttgccagaa agaagggcat 60
ttaaaaagtc aggcagggga atagggagtt attgttaatg ggtaccaaat ttcagtttgg 120
gaaggtgaaa gaattctgga aatgaatgtg atgattgcac aattaatgta nttaatacca 180
ctgaaatgta tacttaaaag ttattaaaat ggtaaaattt atgtatattt caccacagtt 240
gaaaaaaaaa agccaagtaa tacaagtaga agtaattgtt attaaacttt ttagtttatt 300
tttaaattgt ttttacaaac tttggggatt ttagagatgt gttccttgag tttgattttt 360
ttcccctgtc atctctcaat ttagtttcct ttctttggcc aggaagagct cgag 414

<210> 1546
<211> 547
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (71)

<220>
<221> unsure
<222> (241)

<400> 1546
gaattcgcgg ccgcgtcgac ggcaagaagg aaagaccaag atcataaata ttaatggtga 60
aaacactgta ntaataaatt ttcatatgcc aaaaaaaaaa aaaaaaaatt ggggggaaat 120
tttttgaaag ttaggagata aatacatttt ctgatatttg ataaaccatg ctattggtaa 180
gcttgacatt gtgctatggc aaaattctat gccgtaatga aacagctggt ccataacctt 240
naaaaataag aatgacaccc aataataaca agtttaatca gtctaacttt tttttattgt 300
tgcttattgg agagaccatt tatgggaaca ctaaacacat agacgtgtct aagtttttc 360
ttagcttttt tctaatcatg aagcatactt tacatagaga aaaccatacg aaattttaat 420
ttacagctca gtgaactgtt acaaggccaa tattaatgta tcgcccaccc aaataaaaaa 480
aatgaacatg ggtaacactg taatcaaatt gcaattaaaa catcattccc tccccactcac 540
actcgag 547

<210> 1547
<211> 515
<212> DNA

<213> Homo sapiens

<400> 1547
gaattcgcgg ccgcgtcgac tggctgcgag tacctccatg gtcccggtgg ctgtgacggc 60
ggcagtggcg cctgtcctgt ccataaacag cgatttctca gatttgcggg aaattaaaaa 120
gcaactgctg cttattgcgg gccttacccg ggagcggggc ctactacaca gtagcaaatg 180
gtcggcggag ttggctttct ctctccctgc attgcctctg gccgagctgc aaccgcctcc 240
gcctattaca gaggaagatg cccaggatat ggatgcctat accctggcca aggcctactt 300
tgacgttaaa gagtatgatc gggcagcaca tttcctgcat ggctgcaata gcaagaaagc 360
ctattttctg tatatgtatt ccagatatct gtctggagaa aaaaagaagg acgatgaaac 420
agttgatagc ttaggccccc tggaaaaagg acaagtgaaa aatgaggcgc ttagagaatt 480
gagagtggag ctcagcaaaa aacaccaagc tcgag 515

<210> 1548
<211> 643
<212> DNA
<213> Homo sapiens

<400> 1548
gaattcgcgg ccgcgtcgac ggtgatccac ccgccttggc ctcccaaagt gctgggatta 60
caggtgtgag ccaccatgcc cggcttgttt tttataagtt agcaaatatg atctttttctc 120
tggtgatatg ccaacatagt tgtaatgaat aaaatgttac agaagacata acatatgaaa 180
agttattagc taactatttt atttcaatgt gatggactaa accacacact gcatttaggc 240
ataactttga gctgatgact tcctgtactg tccccaacca attgtcaccc ctcagagggc 300
tgccacacta ccctcttgtt ggcacaggaa ttggttggtc tgggctttta aaatcagatt 360
catctttctg aattccttcc tcagtttctt tcccatctgc ctagctcctg tgccccatcc 420
gggcattcca ggccaacccc caagtgtctg gccacggaag tgaatatgtt tgggatttaa 480
atcatcagtt gcctttgaaa gtcacgctgc aatagacaga taacttggaa tgcaggtgag 540
gcagagaatt cactgccatc aagtcgcagt gtaaataaga tcacagaggt gatgataacc 600
tttcacgggt tgatgatagg ttaatgaaaa aagaactctc gag 643

<210> 1549
<211> 588
<212> DNA
<213> Homo sapiens

<400> 1549
gaattcgcgg ccgcgtcgac gacctgcctc gcgtccttgg cttccaagca cccttccgaa 60
gagtggccaa aaacaggcca gcatttttaa tactttggga atgggttggc caacatttga 120
aaaagctgca gcttagcaga tatgctcaca agctacatct tctaaagcct gacattggtt 180
aggaattaag gtcgggtcca ggtctcagta ttaataattc tttctcttta tcacctgaat 240
tttgctgtaa agcagtgctg accaatagaa acataatatg aattatatat gtgattttca 300
acttcctagg caccactttt aaaaagtaaa aagaaactgg gagaaataat tttatttaac 360
tcaatgtgat catttcaaat atgatctcag atatgatcat ttcaacatgc agtcaatgtt 420
ctaaattatt tacgagatac tttaccttct tttttcaaa atctttaaaa tccagcatat 480
agtttacact tacagcatat cccagctgag accatccaca tctcaggggc tcaggaaata 540
cacaaggtaa gctgaacagc tcgcgtctca aggattagct gcctcgag 588

<210> 1550
<211> 744
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (238)

<400> 1550
gaattcgcgg ccgcgtcgac ggcatcttat ttttcaggtg agctatttcc tcttatttat 60
ggattattac aggtcttctt aaaagtattc aaatgatagt agaaaggcag atctgggcag 120

ggcacggtgg ctcatgcctg taatcccaac agtagattgg gaggttgagg tgagaggatc 180
gcttgaggcc aggagttcga gaccagcctc ggcaacatgg tgagacgctg tctctacnaa 240
gaaattttaa agattggctg ggtatgctgg tatgtgcctg tggtctcagc tactcgggag 300
gctgagaggt gggagtagtg ctgagcccgg gaggtcaggg ctgcagtggg ccatgatcgc 360
gccactgcac tcccagccag aatcacatga gagcctgtct caagcaaaca aacaaaaaat 420
gattcttgcc actgagctta agaaaagaaa aagggaaaaa aaggcagatc tgaattccct 480
ctagatccta ccttttcaag ggagaaaaga gaggacagag ccaagggcag aggaaaagct 540
tagggagaga aaatagcaaa aatgaaaaat ttacacttat ttcaaaagat agactttctg 600
ttttgaatct ttggaacatc tgttttgatc agactgaaaa tagttggacc acatgttttg 660
tgtttcaact gaacattcca gagagaagat tataattctg aaggtgtctg ttcataaaga 720
ctggtatttc ccatatctct cgag 744

<210> 1551
<211> 529
<212> DNA
<213> Homo sapiens

<400> 1551
gaattcgcgg ccgcgtcgac ctggaatgca aacaacagaa aattatctta ctgagaaggg 60
aaatgaaaga aacgtgaaat ttcccccaga acaccctgta gagaatgatg ttacacaaac 120
tgtaagttct ttctcattgc cagcctcttc aagatcaaaa aaattgtgtg atgttacaac 180
aggacttaaa atacacgtgt ccattccaaa tagaattccc aaaattgtaa aagaaggtga 240
agatgattac tacacagatg gagaggaaag cagtgatgat gggaagaaat accatgtgaa 300
gtccaagtcc gctaaaccat ctactaacgt taaaaaaagc ataaggaaaa agtattgcaa 360
agttagctcc tcttcctcct cctctttatc ttcctcatct tcaggttcag gtacagattg 420
tttagatgca gggtctgata gccatctatc tgattcgtct ccgtcatcta agtcatctaa 480
gaaacatgta tctggtataa ccctcctgtc accaaaacac aatctcgag 529

<210> 1552
<211> 438
<212> DNA
<213> Homo sapiens

<400> 1552
gaattcgcgg ccgcgtcgac atgaaatgca gaatacacat ttttggatcc aggaagtgtt 60
acttacgtgc ctgtaacaat gtaattttag gccaggtgca gtggctcatg cctacggtcc 120
tagcactttg gaaggttgag ggaggatgat cgcttaagtt cagttgttga aatgcagaat 180
acacattttt ggatccagga agtgttactt acgtgcctgt aacaatgtaa ttttaggcca 240
ggtgcagtgg ctcatgccta cagtcctagc actttggaag gttgagggag gatgatcgct 300
taagttcagt tgttgaaatg cagaatacac atttttggat ccaggaagtg ttacttacgt 360
gcctgtaaca atgtaatttt aggccaggtg cagtggctca tgcctacggt cctagcactt 420
tggaaggttg aactcgag 438

<210> 1553
<211> 710
<212> DNA
<213> Homo sapiens

<400> 1553
gaattcgcgg ccgcgtcgac atcacattgc agttaatata gaaatactgt ttatacttat 60
tcaaaattat agtaacacat cactgaattt attgaatgca acagagaagc acatatatat 120
atcgcgttta cttttatga ctgttttaat agaattagtt ttcttgtaaa tcctgtgtat 180
atttaagaac agtattcaga gaagaggtta agaagcgtca tcctatagta aaagagatgt 240
aaggcataga gaaagtttgg aacttctttt gtaacagcga taatcccaag cttgtctaac 300
ctctcagtga gtttagaatg agtctctagg ttgtggatat taaggaaaaa ttgtttcata 360
taataaactg cttgatttta actttaggc aaatttgttg actactgaga cagcggtttg 420
aaggtatcag attcactatg gaaactttta ggaaataggt tcccctagtg aaacttgtta 480
aactaaataa agcccatgag aatctaacat gcctttcaga aaatattgtg tgaaagctat 540
ttgacacctt ttgatgcaca gtgtaggatt catattcttt tgactaatac tgggtgttga 600
ataccatttg cttcctgccg tgcacagaaa tttggagtag ggagtgaaaa caaagtattt 660

gctatgtttt ggtctggagg gacagaaaga aaaacaagct agctgccaaa 710

<210> 1554
<211> 677
<212> DNA
<213> Homo sapiens

<400> 1554
gaattcgcgg ccgcgtcgac gattttacta tctttaaagc aatgatggtc cagaaaaaca 60
ttgaaatgca gctgcaagcc attcgaataa ttcaagagag aaatggtgta ttacctgact 120
gcttaaccga tggctctgat gtggtcagtg accttgaaca cgaagagatg aaaatcctga 180
gggaagttct tagaaaatca aaagaggaat atgaccagga agaagaaagg aagaggaaaa 240
aacagttatc agaggctaaa acagaagagc ccacagtgca ttccagtgaa gctgcaataa 300
tgaataattc ccaaggggat ggtgaacatt ttgcacaccc accctcagaa gttaaaatgc 360
attttgctaa tcagtcaata gaacctttgg gaagaaaagt ggaaaggtct gaaacttcct 420
ccctccccaca aaaagacctg aagattcctg gcttagagca tgcgagcatt gaaggaccaa 480
tagcaaactt atcagtactt ggaacagaag aacttcggca acgagaacac tatctcaagc 540
agaagagaga taagttgatg tccatgagaa aggatatgag gactaaacag atacaaaata 600
tggagcagaa aggaaaaccc actggggagg tagaggaaat gacagagaaa ccagaaatga 660
cagcagagga actcgag 677

<210> 1555
<211> 536
<212> DNA
<213> Homo sapiens

<400> 1555
gaattcgcgg ccgcgtcgac attgggcatt tccagaatac cattcgagaa atgttttctc 60
agttcgcaga gtttgatgat gaactggata gcatggctcc agtggggaga gatgcagaaa 120
cattgcaaaa gcaaaaggaa actataaaag cctttctaaa gaaactagaa gccctcatag 180
caagcaatga caatgccaat aaaacctgca agatgatgtt agccacagaa gaaacctctc 240
ctgaccttgt tggaatcaaa agggacttgg aggccttaag caaacaatgc aacaagttac 300
tggaccgagc ccaagccaga gaagagcagg ttgaagggac aattaagcgc cttgaagaat 360
tttacagcaa attgaaagaa ttttctattc tgctccagaa agccgaagaa catgaagagt 420
cacaaggtcc tgttggtatg gaaacggaga caattaatca gcagcttaac atgttcaagg 480
tattccagaa agaagagatt gaacccttgc aaggtaaaca gcaagatata ctcgag 536

<210> 1556
<211> 575
<212> DNA
<213> Homo sapiens

<400> 1556
gaattcggcc aaagaggcct actattattc tcatggtcag tagcaacttt tggttcaaat 60
atcccaaaac atgctcaaaa gtagaacatt ttgtttcaat attaggaaag tgctttgaat 120
ccccttggac gacaaaagcg ttgtctgaga cagcatgcga agactcagag gaaaacaagc 180
agagaataac aggtgcccag actctaccaa agcatgtttc taccagcagt gatgaaggga 240
gccccagtgc cagtacacca atgatcaata aaactggctt taaattttca gctgagaagc 300
ctgtgattga agttcccagc atgacaatcc tggataaaaa ggatggagag caggccaaag 360
ccctgtttga gaaagtgagg aagttccgtg cccatgtgga agatagtgac ttgatctata 420
aactctatgt ggtccaaaca gttatcaaaa cagccaagtt catttttatt ctctgctata 480
cagcgaactt tgtcaacgca atcagctttg aacacgtctg caagcccaaa gttgagcatc 540
tgattggtta tgaggtattt gagtgcaccc tcgag 575

<210> 1557
<211> 699
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (7)

<220>
<221> unsure
<222> (9)

<220>
<221> unsure
<222> (40)

<220>
<221> unsure
<222> (59)

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (105)

<400> 1557
gaattcngnc aaagatgcat aagtttactg tggttcctgn tatgctctct gctcaaagna 60
aatcatgcta ttaggattaa aaaacttcnc aagggcacgg tttcntttca ttcccattca 120
gatcaccgtt ttctgggcac ggtaaaaaaa gaagccactt tttccaatcc taaaaccact 180
agcccaaata aaggcaaaga gaaggaggct gaggatggca ttattgctta tgatgactgt 240
ggggtgaaac tgactattgc ttttcaagcc aaggatgtgg aaggatctac ttctcctcaa 300
ataggagata aggttgaatt tagtattagt gacaaacaga ggcctggaca gcaggttgca 360
acttgtgtgc gacttttagg tcgtaattct aactccaaga ggctcttggg ttatgtggca 420
actctgaagg ataattttgg atttattgaa acagccaatc atgataagga aatctttttc 480
cattacagtg agttctctgg tgatgttgat agcctggaac tgggggacat ggtcgagtat 540
agcttgtcca aaggcaaagg caacaaagtc agtgcagaaa aagtgaacaa aacacactca 600
gtgaatggca ttactgagga agctgatccc accatttact ctggcaaagt aattcgcccc 660
ctgaggagtg ttgatccaac acagactgag tacctcgag 699

<210> 1558
<211> 651
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (632)

<400> 1558
gaattcgcgg ccgcgtcgac ccgttaaaac acagcctata tcaatgaggg cctgggagaa 60
aactggggtg ggggaggact gtgcctctct tgaccttcat ttacaaaaaa taagttggct 120
cctagacccg tgttggagcc acactgcccg ggacagccct gaagcagcca cgtccccacc 180
tttcaggagt cggccaagag cacggtggct gcagaaggcc ctggctgatg gagataacat 240
ttgacaaaca gggtgagcgc cttccccctc cgcccctctt ttagaaaccc ggcgttcttt 300
atggctttgc tcaggtagat cattcattgc cataaatttt cttatctcca gtgcttttcc 360
aattatggat aacaacagaa aagcagtcat tggtttctaa aaggtcatca agatataaag 420
cccgtttggg aagggaatga cttacgcagt gggcttgtat aaatctggag aagttttatg 480
cacaagtcgg acaagaaatg taagtgagat tcataaaata tataacgatt catggtgtct 540
cggctgatga aaattgtctt tccttttgct gtttgtgtgg gaattatttg ttctttccag 600
gtgttctaca tacggctcgg gagccagcaa gngcttatga agcccctcga g 651

<210> 1559

<211> 560
<212> DNA
<213> Homo sapiens

<400> 1559
gaattcgcgg ccgcgtcgac cgagtggctg ggactgcagg cgcccgccac cgcgcccagc 60
tagttttttt tgtactttta gtagagacgg ggtttcaccg tggtctcgat ctcctgacct 120
cgtggtccgc ccgcctcggc ctcccaaagt gccaattctg actctactta aacatcacct 180
gtatcaggga gctcattatt ccttgaggtc ttacatttct ttcagcacat tttgttccaa 240
gctacacatg actttaaaac agagccagcc tttggggcat atgttctctt tggtgccaca 300
caaaacctgt agtacatgat acagtgttgc ttcccccctc cttttccttc catatatatt 360
tgttttgttt tgggcattgc attacttttt tgaattttta agaatctcta aaattagtct 420
gaaggatgtt ctgagggcca gacattagaa tttgtgagtt tttttgttgc tggttgtact 480
ttcctattta gaagacagac cgttctgaca gttgttgtgt agcttcatgc cttccccagt 540
aactaaccca tgaactcgag 560

<210> 1560
<211> 625
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (116)

<400> 1560
gaattcgcgg ccgcgtcgac ttgagatgag actctgtcgc caggctggag tgcagttgca 60
cgatctcatc tcactgcaac ctccaccgcc cgcgttcaag cgattctcct gcctcngcag 120
cctcccgcca ccatgctcag ctaatttttg tatttttagt agagacgggg tttcaccatg 180
ttggccagga tggtctcgat ctcttgacct catgatccac ccgcctcggc ctcccagagt 240
gctgagatta caggcgtgag ccaccgctcc tagcctataa tcatatttgt aataattgta 300
ctttgtgtag cactttacaa tggcgaagag ttttcagaaa taaccatatt taatcctcac 360
acagctatag agtaggtggc atatgacctg gattttctat caatttcagt ttcagatttt 420
ttgtcctgtc atccctttga gtgtccttcc agtttttgat ttgggaaata atgctaccat 480
accggtggat ggggcaactt ttcccttctt tccatttgga cttgagcaga ctgagactca 540
agacttgatt tgatttatac tcactatggt agaagataag gaaccaagtc cagaacacac 600
attttacaaa ctccgagctc tcgag 625

<210> 1561
<211> 667
<212> DNA
<213> Homo sapiens

<400> 1561
gaattcgcgg ccgcgtcgac tctagttgta ccaaagaagt ggtaatatag acttttgtgg 60
atcctttaga gcacctgata tcacattaaa taatatgata cctgaatatg tatttcagtt 120
gtttctccca ctagaatacc agggtaggaa ttttcttttg tttactgttg tatctgtagt 180
gtccagagca gtgcctagca tgcagtgaat gcttattaaa tattttttga atgaatgaat 240
tataagacac ttggaagctg agggaattta ttataaacag agtttaatcc ctgaaaggag 300
tcctgcacag agattgtcaa tcaaatcata gttttgaagt ctgtgttcta tgtctaagat 360
tgtattgagc ccttttaaat agaaactgga agataaacgt ggtccctact ctgattctaa 420
gagcttttat actaaaagga aagagaatgt catgagcatt tatgtatata gcaaggcatt 480
accatcaaca gccattaaaa ggggaggttt gtcaaggtgg tcgtgagtca gttgagtatt 540
tggcctcttc acacgtgtga gaggctggag gctggtgggg agctcacata ggcgtaacag 600
cccatgttca aatccagctt cactgcttag tgtttgcatt acattggcaa gggttgactg 660
cctcgag 667

<210> 1562
<211> 676
<212> DNA

<213> Homo sapiens

<400> 1562
gaattcgcgg ccgcgtcgac gtcctgggcc tgcacgtaaa gctagccccc tgccccacgg 60
aaatggcaag cagtgcttcc ctccaggggt tctacatctg tgctccatct caaaatgcat 120
aaaagcctga gtcattcaga tgggagagac agtgtttcta cttcctctta gttggggttc 180
ctccagaagg agaccctgag agaggacttg aggttatgta gtttatctga gtgaagatcc 240
cggaagtagg gagagaagga agctgacggg gaaggcgtgc attatcaagt aagttaccgt 300
catgtgcaca actggagctg aatcccactg ggaaccccg agagacagag ctgacacccc 360
agagttcacc cagcaaggcg gggagacagc tggggtattt attcaccaag tctatcactt 420
atgaaaggct gtttctggaa acaatttctg actggccctg cacacacctg agcatacttc 480
ctaagccggg gatgtccctg agctgagaca ggcgttcgtg acaagcagac ttcgagtgga 540
aggcaggcat cagaaccacc ctgtgagctg gttcagacaa agattgcagg cccttccacc 600
cccctggccc cgccaagttc ctgactccct aggtctggag tggggcccgg gaatttgcat 660
ttcaaaaaat ctcgag 676

<210> 1563
<211> 573
<212> DNA
<213> Homo sapiens

<400> 1563
gaattcgcgg ccgcgtcgac atgccctgat ctttttccag aagagattca cttaatccta 60
tgacagtgca gttcagacct gactggagta ctacaaatgt agtttgatct gtgcctggta 120
gataatttaa attgaccgac tccaaggtag ttatatgtta agtcagcatt tgtcttcctt 180
tttgttcaca aataaaagca agagcctttt tactttccaa atgattttaa aatttagatt 240
gaatttgtcc aaaggaagaa aaatatattt aatttttttt tcttttttttg agacggggtc 300
tcactctgtt gcccaggttg gagtgcagtg gcatgatcat ggcttactgc agtcttgaac 360
tcctggactt aagcgattgc ccacctcag gcttgtcagt agctgggact acaggtgtgt 420
gtcaccacgc ctgactaact ttttaaaatt tttgtaaaga tggcatctct gttgcccatg 480
ctggtcctga actcctgggc tcaagcagtc ctcctgcgtc agcctccaac acgctaggtg 540
actataggtg tgaaccattg caccagactc gag 573

<210> 1564
<211> 601
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (21)

<220>
<221> unsure
<222> (26)

<220>
<221> unsure
<222> (57)

<400> 1564
gaattcgcgg ccgcgtcgac ntgtcnagga tggtgtgggt gtcatgccgg tgcaacnaca 60
ggaatcgcag gaaggtacgg agcaaagcag gctctgagat actccgtagg aaaagttcca 120
ggttggcggt actggcgatc atctcctcca cagaggtctt gtgcaaggca ggacccatga 180
caggcaccag gaacccatta tggatataat caaccaactg cttctgcacc agggggtgag 240
ccacctgaat tactgcattg cagaactcca gggaactcat gaagagtgca agggctggca 300
ctcccagcca gtcttcccgt cgcagacagt gccaatcatc ccctggaacc tcaatctttc 360
gaggcagtga tgagtacagg gcactgagcc ctgtggccag caccgggcag aagtaagagt 420
gatccgcgat gtagcggccc acagtggggc tcccagctga caaagccatg agaagaagta 480
gggcatcacg ggcctgctgg cccagggtgc cctctcgatg cacaaaaggg acaaggcgag 540

aaaagagaag aagacgggga gcggctccag gctcaggagg tggctgcagg aagaactcga 600
g 601

<210> 1565
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1565
gaattcgcgg ccgcgtcgac ggggatttta ttttaagttt gttggtttgt agttttctgt 60
atggtgattt tattttttta actgaaaatt taagaattaa ctccagataa taataacacc 120
ctcatttctt ataaactaac tacttgaatt taactttttg ccatgccccc ccaccgccat 180
caggcatcac tcgag 195

<210> 1566
<211> 293
<212> DNA
<213> Homo sapiens

<400> 1566
gaattcgcgg ccgcgtcgac cgagattact ggcaagtctt ttagattttt tacagccttt 60
ctcataacag cctctttctc ttttgctcct gttggtaacc cagtatgagc tattatgagt 120
tttattcttt gcctattgaa atagcttcca aaccaatgtc tgattataat ttgtaccttc 180
tctgttccac cctattttct agattgttcc ttctaagtcc acatttaatc cattgcttcc 240
aagtctctct tcttttacag aatcaagttc agactttcgg gacttcactc gag 293

<210> 1567
<211> 715
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (145)

<220>
<221> unsure
<222> (226)..(227)

<400> 1567
gaattcgcgg ccgcgtcgac ccaagacact caatggaata tgtcacactc cttaataggg 60
acctgtgact ccttaataag gacctgtgac atgcccagca tcaagggata agaccgtaaa 120
ttcacatata tgccatctgt cctcnagtgt tatctacata ggaaataaaa tggaattgat 180
gtaaagttcc atttctgacc gctgacattt attaaacttt ggatcnnaga taatgtgatt 240
cttatgattg atttctcaaa ctagcttttc cctcccaagt ccaggaccca ttaatttcct 300
gagccaatca gaaatatatt tttcaataat gctaaaatta gctacaattc tgctgaccct 360
actattaaag aatctggatg ctggactcat tgacaagctt tccagaagca attttataac 420
agatttcatt ttaacaaaat actgatccaa ttttcattat tcttgagaaa tgtcagcttt 480
gccttaatga gtatttgctt taaatttcta agaatttata tcataactag agacccaaat 540
atctttcaca gaattttgtt ccataaatgt ttttcttaat tattaagaag tgttacctta 600
ttaaaatgac caccattcta aaccattttt cagtggtctg gatacgaagt ttacagtttc 660
ataccaacta tctaaaacct aattgcaaat tgaccacaga cccctaaccc tcgag 715

<210> 1568
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> (21)

<220>
<221> unsure
<222> (57)

<220>
<221> unsure
<222> (65)

<220>
<221> unsure
<222> (116)

<220>
<221> unsure
<222> (185)

<220>
<221> unsure
<222> (188)

<220>
<221> unsure
<222> (278)

<220>
<221> unsure
<222> (281)

<220>
<221> unsure
<222> (312)

<220>
<221> unsure
<222> (327)

<220>
<221> unsure
<222> (434)

<220>
<221> unsure
<222> (438)

<220>
<221> unsure
<222> (462)

<400> 1568
gaattcgcgg ccgcgtcgac nactattgag gatctgagaa ccaaaatagc tgaactngag 60
aggcngtatc ctgccctgga cacagaggtg gccagtggtc atcaagggct tgagantgga 120
gtgacagcct caggcgatgt ctgtctcgaa gctctcaggt tagaagaaaa ggaagtacgg 180
catcntanga ttttagaggc gaaatcgata ctgacttccc ccacggaaga gggcggggtg 240
ctgacactgc ctcctgtgga tgggctgccg gggcgtcntc natgcccccc tggggctgaa 300
agtggacctc anacaaagtt ctgttcngag atttctttga ttgtgtctcc aaggcgaata 360
tcagtccagc tcgacagcca tcagcccaca cagagcatct cacagcctcc accacctcca 420
tcccttctgt ggtntgcngg gcaaggacag cctgggtcac anccgcccca ttctatttct 480
accgagtttc aaaccagcca cgaacactgt gtttcctctg cctttaaaaa cagctgaaac 540

atcccatctc ctcgag 556

<210> 1569
<211> 673
<212> DNA
<213> Homo sapiens

<400> 1569
gaattcgcgg ccgcgtcgac gcatgagtct ggccaatgta ccccctggag agcagcggtc 60
tcgcttcctg gctgtggggc ttgtggacaa cactgtcaga atcatctccc tggatcccctc 120
agactgtttg caacctctaa gcatgcaggc tctcccagcc cagcctgagt ccttgtgtat 180
cgtggaaatg ggtgggactg agaagcagga tgagctgggt gagaggggct cgattggctt 240
cctatacctg aatattgggc tacagaacgg tgtgctgctg aggactgtct tggaccctgt 300
cactggggat ttgtctgata ctcgcactcg gtacctgggg tcccgtcctg tgaagctctt 360
ccgagtccga atgcaaggcc aggaggcagt attggccatg tcaagccgct catggttgag 420
ctattcttac caatctcgct tccatctcac ccactgtct tacgagacac tggaatttgc 480
atcgggtttt gcctcggaac agtgtcccga gggcattgtg gccatctcca ccaacacccct 540
acggatttg gcattagaga agctcggtgc tgtcttcaat caagtagcct tcccactgca 600
gtacacaccc aggaaatttg tcatccaccc tgagagtaac aaccttatta tcattgaaac 660
ggaccctctc gag 673

<210> 1570
<211> 459
<212> DNA
<213> Homo sapiens

<400> 1570
gaattcggcc aaagaggcct acttgcattt attcagtaag actaattaac aaaagttgtg 60
agtaaacacc actagagggt aaaattaaag gccaggttcc caggcctaaa gcaaacacca 120
tttgtgggta ataaactgcg gacccccgag taggcggcag taaagtaccc tcagcaggac 180
aaaagttagt cttaagccca tataactaaa caggttagta agataaactt cctacattcc 240
ttttcacttg caccctaatc ttcctggcct cctgcaaaga gaccctggct gccttcagcc 300
aagcaatcaa gctatgcaaa ctctcaggcc ttttaggaca gcttttgact gttactcttt 360
taaatatttt tcccaccagc ctgattgaac cccaacaccc agctctgctg agggtacagg 420
aattggccag acatggtggc acacacctct tagctcgag 459

<210> 1571
<211> 551
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (340)

<400> 1571
gaattcgcgg ccgcgtcgac aggtgaggga ggatgtgact ccaggggccc cagtactccg 60
agtcacagcc tcggatcgag acaaggggag caatgccgtg gtgcactata gcatcatgag 120
tggcaatgct cggggacagt tttatctgga tgcccagact ggagctctgg atgtggtgag 180
ccctcttgac tatgagacga ccaaggagta caccctacgg gtgcgagcac aggatggtgg 240
ccgtccccca ctctctaatg tctctggctt ggtgacagta caggtcctgg atatcaacga 300
caatgccccc atctttgtca gcacccctt ccaggctacn gtcctggaga gcgtcccctt 360
aggctacctg gttctccatg tccaggctat cgacgctgat gctggtgaca atgcccgcct 420
ggaataccgc cttgctgggg tgggacatga cttcccсttc accatcaaca atggcacagg 480
ctggatctct gtggctgctg aactggaccg ggaggaagtt gatttctaca gctttggggt 540
agaagctcga g 551

<210> 1572
<211> 677
<212> DNA

<213> Homo sapiens

<400> 1572
gaattcgcgg ccgcgtcgac gcgactgagt cggtggcgaa gacgggaacg cgacgatggc 60
ggagactctg cccgggtcgg gcgactcggg ccctggcacg gcttctctcg gcccgggcgt 120
tgcggagact gggacgaggc ggctcagcga gctgcgggtg atcgatctgc gggcggagct 180
gaagaagcgg aacctggaca cgggcggcaa caagagcgtc ctgatggagc ggctcaagaa 240
ggcggttaaa gaagaggggc aagatcctga tgaaattggc atcgagttag aagccaccag 300
caagaagtca gccaagagat gagttaaaag actgaagatg gaggaggaag gcacagaaga 360
taatggcctg gaagacgatt ccagagacgg gcaggaggac atggaagcaa gtctggagaa 420
cctgcagaat atgggcatga tggacatgag tgtgctagac gaaactgaag tggcgaatag 480
cagtgctcca gattttgggg aggatggcac ggacggcctt ctcgattcct tttgtgatag 540
taaagaatac gtggctgcac agctgagaca gctcccggct cagcccccag agcatgctgt 600
aggtggatgg ggaaggattt aagaacactt tggaaacttc atcgttgaac ttcaaagtaa 660
ctccggacat tctcgag 677

<210> 1573
<211> 757
<212> DNA
<213> Homo sapiens

<400> 1573
gaattcggcc aaagaggcct aggctgaatg aaatcatggt cacagtttta aaggaagagt 60
ttccagtatc aaaaccaggt ttgaatgtct tacccacatt tcacagacac cacgagtgct 120
atcagcacag tatgaacctc acagcccgta tctcggtggt gtcttaattc acatctatga 180
tcccaaacct gtgttccaca ggatcatgcc cacacatggg tccataacaa ttatcccatc 240
tcctctgggg ctgagtctga gtccataaat ttccctcaac acagaagaca cggctgtcac 300
cagccctccc tctccaggtc agtggggact cagcgcaggt cggtctcatg gtgaccagac 360
ggagcgcact gtgctacctg ccgcgtggtc tgcccattag aaacttcgta gagtgcctgt 420
gagccatgag gaagcctctg ggaaaagcag tgccctggaa aatgccctcc actttccacc 480
tggacaccag gcactgcggg gacacggcca gctcctgtgg cccaagaaca accaaggagg 540
ctggcacacg agggaggagg gcatcttaag gccgaattgg ggtccaaaga ggcaaaactc 600
acagcggatg gccgagaagc tcccccaagc acaggcacca tcaggcagcc tcaaggccca 660
gagcggctct tcacgtgagc agaggggacc cccgcaagga cagggcagag gggtcgccct 720
cacctggaga gtcaacgact cccgcccacg gctcgag 757

<210> 1574
<211> 644
<212> DNA
<213> Homo sapiens

<400> 1574
gaattcggcc aaagaggcct acgccccggt cacagtgaaa atgtagacgg ggtcgttgtc 60
cgtacgactg tgcgccaggg ctcggggagg ggcgccctcc gcgtgagcgc ccccctggga 120
atattgaaca taatcacctc tcattccaga ctatgttagg tcttaatggt gggaggacgc 180
ccgattgctc ggcccgtttc accccgagga ggaaggacac tgggtcatga cgccatcaga 240
gggcgccaga gcagggaccg gacgcgagtt ggagatgttg gactcgctgt tggccttggg 300
cggcctggtg ctgcttcggg attccgtgga gtgggagggg cgcagtctct tgaaggcgct 360
tgtcaagaaa tctgcactgt gtggggagca agtgcatatc ctgggctgtg aagtgagcga 420
ggaagagttt cgtgaaggtt ttgactctga tatcaacaat cggctggttt accatgactt 480
cttcagagac cctctcaact ggtcaaaaac tgaggaggcc tttcctgggg ggccgctggg 540
agccttgaga gccatgtgca agaggacaga tcctgttcct gtcaccattg ctctcgattc 600
actcagctgg ctgctacttc gccttccctg caccaatact cgag 644

<210> 1575
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1575

gaattcggcc aaagaggcct agaggggcta agggtagagt ttaatttaaa tttccttctt 60
acaatcagag tcctcgccaa ggcaactgct tagttttcgt actgcacttg ggatcttaca 120
cattcattcc acaaatacat attttatggc tactatgcat tgggcactat tccaggtgct 180
agag 184

<210> 1576
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1576
gaattcggcc aaagaggcct acgtcgattg aattccagaa gccctgttca tggttgggga 60
tattttctcg actgcatgga atcagaaaga agcaaaagga tgggaaatgc ctgcattccc 120
ctgaaaagaa ttgcttattt cctatgtctc ttatctgcgc ttttgctgac tgaggggaag 180
aaaccagcga agccaaaatg ccctgccgtg tgtacttgta ccaaagataa tgctttatgt 240
gagaatgcca gatccattcc acgcaccgat ctcgag 276

<210> 1577
<211> 823
<212> DNA
<213> Homo sapiens

<400> 1577
gaattcggcc aaagaggcct atgttatttg tctttttgat ttcgttgaca tttttatcga 60
ttgtgaaaaa gcatggtgtt attcactgtg cacttgtaat aaaaatgtcg gtttcatttt 120
aaaatgccct tgacgttgca gtaaaaatta ttaattttat taaaatttta acccatgaat 180
acacatcttt tattctgaga tgaatgatac atatgcatag agtacttctg tggcatgcca 240
aagtaccatg cttgtttcag ggagatgtga agttcagtta caagctgaac tacttgcttg 300
tttcttggaa taccattttt atttgcagta atgactgaca gacaaactac gcccatttgc 360
actgcgttat ttgacagttg ttttttgaaa agtgaatgag aaacatctcc catagtgagc 420
ttgatagctt cccagtatgt agactttttct catggagtct gatattagag agtgtaattt 480
tccaatactg gataatgaaa tgtgtcaaca tttggaatat ttgtatacag tggtgaacca 540
atattttcca aatgatcaat gcatgatgtt tcaccagtat gcatgggtaa agttctttaa 600
aagtataaaa tatatcagtt gatcttaatg taacagagtt tgagaagttc attggtaaga 660
tttcagatac cacattgtaa cctttaagaa attaccactt gtcaagtttt tgaatatgca 720
agcattttaa aatattcttt ttccaactac atatttgtgt tgggtcagat gttttcaccc 780
acttctgcta aaacaacatt ttataacacg tcgcggactc gag 823

<210> 1578
<211> 721
<212> DNA
<213> Homo sapiens

<400> 1578
gaattcggca aagaggccta tccaccatca cgatcgtggc cgaggaggta tcaggcacaa 60
acgactatgt gcaactcacc ttcagagcct acaagctgga caacaaggat ctgttcagca 120
agtctgaccc tttcatggaa atctataaga ccaacgagga ccaaagtgat cagctggtct 180
ggagaactga ggtggtgaag aacaacctga accccagctg ggagccgttc cgcctgtccc 240
tgcattccct atgcagctgt gatgttcacc gacctctcaa gttcctggtg tatgactatg 300
actccagtgg gaagcatgac ttcatcggcg agttcaccag cactttccag gagatgcagg 360
aagggacggc aaaccctggg caggagatgc agtgggactg tatcaacccc aagtatcggg 420
acaagaagaa gaattacaag agctcaggga cggtagtgct ggcccagtgc acggtggaga 480
aggtgcacac cttcctggat tacatcatgg gtggctgcca gatcagcttc acggtggcca 540
ttgacttcac tgcctccaat ggggacccga ggagcagcca gtccctgcac tgcctcagtc 600
cccgacagcc caaccactac ctgcaggccc tgcgtgcagt gggaggcatc tgccaggact 660
atgacagtga taagcggttc ccagcttttg gctttggggc tcgaatcccc cccaactcga 720
g 721

<210> 1579
<211> 549

<212> DNA
<213> Homo sapiens

<400> 1579
gaattcggcc aaagaggcct accagatggt aactcagatc cacagaaaaa aataaaaagc 60
accagaaatg gcaaatatgt ggacaaatgt aaaatctctc tattttctct tcttatttat 120
ttaaaataca tagaactatt tagaaaaagt ataacactta tgtattggac ttatatattg 180
attatatata catggcaata gctcagaagg tggggtgggg tgggggaatt tattggagtt 240
atattgctgc aagtttacca tattttacct gaaacaactt agattattac ccctaagtgg 300
actgcaatga gatttatagt gtaatcccac taaaatataa tgtgagagga ttgcctgagg 360
ccaggagttt gagactagcc taggcaacat agtgagaacc tgtcgctaca aataataata 420
ataataatca aagctctcac ctcaataacc taggaaaaaa atagcaaaat aaatccaaag 480
caagcagaag gaaggaaata ataaagataa gaacagaaat ccatgaaatt agaaaccgaa 540
aaactcgag 549

<210> 1580
<211> 646
<212> DNA
<213> Homo sapiens

<400> 1580
gaattcggcc aaagaggcct aatactctga aattaccctt tatctaataa tagcattaag 60
cacagtgtct tttatatttc ttttgacaat catcattttg agcatcatca agtgctaccg 120
ctacactgcg tatggcactg catgctgtgg aggcttctgt ggagtaaggg aaaggtcccc 180
tgcagaactg tacaaacaag ccaacaacaa tattgatgcc aggataccgc atggcctcaa 240
agtgcagcct cacttcattg aagttcgagg gaatggctcc ctcaccaaga cctactgcta 300
caaggcctgt ctgacagcag gctcagggag tgacactttc atgttttaca atacaggggc 360
ccagacagga ccagggcctt cgggagccca agcagcagtg actgacagca ggaatctcac 420
aggccaaagt ggtcagaatg ctgggaacct gattattctc aaaaatgagg ctgtttctca 480
aaatgagcca cgacagccca accctgactg gcgttactct gcctccctga gagcaggcat 540
gcacagctct gtgcacctag aggaggctgg cattctacgg gctggtccag gagggcctga 600
tcagcagtgg ccaacagtat ccagtgcaac accagaacgc ctcgag 646

<210> 1581
<211> 516
<212> DNA
<213> Homo sapiens

<400> 1581
gaattcggcc aaagaggcct aagagaactc cagatttgcc tgaagaagag tatgtgaagg 60
aagaaatcca ggagaatgaa gaagcagtca aaaagatgct tgtggaagcc acccgggagt 120
ttgaggaggt tgtggtggat gagagccctc ctgattttga aatacatata actatgtgtg 180
atgatgatcc acccacacct gaggaagact cagaaacaca gcctgatgag gaggaagaag 240
aagaagaaga aaaagtttct caaccagagg tgggagctgc cattaagatc attcggcagt 300
taatggagaa gtttaacttg gatctatcaa cagttacaca ggccttccta aaaaatagtg 360
gtgagctgga ggctacttcc gccttcttag cgtctggtca gagagctgat ggatatccca 420
tttggtcccg acaagatgac atagatttgc aaaaagatga tgaggatacc agagaggcat 480
tggtcaaaaa atttggtgct cagaatgttg ctcgag 516

<210> 1582
<211> 684
<212> DNA
<213> Homo sapiens

<400> 1582
gaattcggcc aaagaggcct actcctgcct cggcctcccg agtagctggg actacaggca 60
ccggacacca cgcccggcta atttttttg tatttttagt agaggcgggg tttcaccgtg 120
ttagccagga tagtctcaat ttcctgatct cgtgatctgc ccgccttggc ctcccaaagt 180
gctgggatta taggcgtgag ccaccacgcc cggcctctat ttttgaaagt taccttttgt 240
catttttta tctgcagtag tgtggattag aaacctggct cagtcctacc actaaaataa 300

ttcttaaaag ttggatgaaa cattaaaaaa atcttgcttt agtgtcacaa tgatcaggca 360
agaagacaat aattttatga aaattaaggt tttaccttga gagcattctc tggtcttgat 420
aaggatgagg ccatgtttct tgggactgta aaaagcaggg gaccagagac aaagttcaaa 480
gtccagccaa attggaagtg tagtaagaga acactcttac actattggtg ggagtgtaaa 540
ttagttcaac cattgtggaa gacagtatgg tgattcctca aggatctaga actagaaata 600
ccatttgagc cagcaatctt attactgggt atatactcaa aggattataa attattctac 660
tctaaagaca caggcactct cgag 684

<210> 1583
<211> 464
<212> DNA
<213> Homo sapiens

<400> 1583
gaattcggcc aaagaggcct agcttctacc aaatttaacg cagcttaatt agggaccagg 60
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tttaagaggt agattttttt ttccatgatg cattttgtta ataaatgtgt caagaaaata 180
aaaacaagca ctgagtgtgt tctcttgaag tataagggtc taatgaaaaa taaaagatag 240
atatttgtta tagtctgaca ttttaacagt catagtatta gacgtttcgt gaccagtgca 300
ttttggactc tctcaggatc aaaatacgag tctgccaact gtattaaatc ctcctccacc 360
ccctccacca gttggtccac agcttcctgg tgggtcgttg tcatcaaatc cattgggccg 420
aaatgaacat gaagcagatg cagcttggag ggcccgggct cgag 464

<210> 1584
<211> 660
<212> DNA
<213> Homo sapiens

<400> 1584
gaattcggcc aaagaggcct acaaagaggc ctaggaatcc tgttcttgtg caaatcctgt 60
ggttgatgct caacacacaa aaccaaaaaa ctgtttgttc ttggcataaa aatgaaatga 120
actcttgctt atttcttat aaagaatgaa gttttagatc taaaggaatt tggatacact 180
ttatttccct tgtttttttc ccagtttggt ttctgacctg tgttgggtgg gggggttagg 240
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actgtcataa caggatagcc atgattccaa taacactggg aggtggatga aacattctga 360
ggatacgtgc aggttgtaga tgggcttgct tactttggag ctcgggtggt gggtgggttt 420
cctcaggggg tagtgagaag ggaggaaaaa cgatgagatg taagtcagat taaaagatgc 480
ctgcatcagc atgagaagcc tactgctaag ggtcaatcat catacaggat gtattttcaa 540
tattaagcag atatggtaga gatttcaatc attgttggac tgattggcct tagagctctg 600
gtaaaacgct gcatcagagc agagcagaca cctgctgagg tcccaggtgc agagctcgag 660

<210> 1585
<211> 398
<212> DNA
<213> Homo sapiens

<400> 1585
gaattcgcgg ccgcgtcgac acagaaagtt atagagatta tattgtgatg ctggaacttg 60
gagtgagaca cacatcattt ggcatttgag ttgaatggta attcacagta atgctgccgt 120
tgttcgggac ttaaagacac ttgacctgtt tgggctgttg ccacttaaaa gttcatgacc 180
acaaatgtcc acagtgtctt cctctgagga aactcgaatc ctgaaatgga aattctttgt 240
ggcagataac tggcttatga caccttgaaa agttcaagtg ctcatataac acaccacact 300
gaaccccctt tcctacagca atatgttcac tatgttacca atttgcaact tgtgcttcaa 360
tagtggaatc tactttcatt gttaacactg atctcgag 398

<210> 1586
<211> 652
<212> DNA
<213> Homo sapiens

<400> 1586
gaattcggcc aaagaggcct actgttaatg gcgggcagta gccgctgagg ggattgcaga 60
taaccgcttc ccgcacgggg aaagtctacc ctgcctgcca ctttctgctc gccgtcagcg 120
ccggagctcg ccagcatgtc tgtggtaccg cccaatcgct cgcagaccgg ctggccccgg 180
ggggtcactc agttcggcaa caagtacatc cagcagacga agcccctcac cctggagcgc 240
accatcaacc tgtaccctct taccaattat acttttggta caaaagagcc cctctacgag 300
aaggacagct ctgttgcagc cagatttcag cgcatgaggg aagaatttga taaaattgga 360
atgaggagga ctgtagaagg ggttctgatt gtacatgagc accggctacc ccatgtgtta 420
ctgctgcagc tgggaacaac tttcttcaaa ctacctggtg gtgaacttaa cccaggagaa 480
gatgaagttg aaggactaaa acgcttaatg acagagatac tgggtcgtca ggatggagtt 540
ttgcaagact gggtcattga cgattgcatt ggtaactggt ggagaccaaa ttttgaacct 600
cctcagtatc catatattcc tgcacatatt acaaagccta aggaaactcg ag 652

<210> 1587
<211> 745
<212> DNA
<213> Homo sapiens

<400> 1587
gaattcggcc aaagaggcct attcagagtg ggatatcaga tctttagtgt gaagatacat 60
ctacattaaa ccaggaatca ctagaactga catttggaca agaaaatttg gaaaatttta 120
aaactgtgaa ggttgatcat ggaaattaaa gaggaagggg catcagaaga agggcagcac 180
tttcttccta cagcccaggc caatgatccc ggggactgtc agttcacaag tatccagaag 240
actccaaaat gaaccgcagt tggaattcat ccttgcatgc aaggatctcg tggctcctgt 300
ccgtgatcgt aaactgaata cactggtgca gatctccgta atccaccccg tggagcagag 360
tctgacaaga tactccagca ccgaaattgt ggagggaaca agggacccac tgtttttgac 420
tggtgtcaca ttcccatctg agtatcccat ctatgaggag accaaaataa aactaacagt 480
ctatgatgtc aaggataagt ctcatgatac cgttcgaacc agtgtcctac cagaacataa 540
ggatcccccg ccagaagttg ggcgaagttt cttgggctat gccagtttta aagtgggaga 600
gctgctgaag tcaaaggagc aattgctggt cctgagcctg agaacttcag atggtggcaa 660
agtggttggc accatagaag tcagtgtcgt gaagatgggg gagattgagg atggggaagc 720
cgaccacatc accacagatc tcgag 745

<210> 1588
<211> 129
<212> DNA
<213> Homo sapiens

<400> 1588
gaattcggcc aaagaggcct aggcaaacag aagtaattta tgattatgat gctagctaca 60
tatatattcc ctctctggca aaaactattt gtcccacaca tgatcctaat tgtacacgca 120
tttctcgag 129

<210> 1589
<211> 571
<212> DNA
<213> Homo sapiens

<400> 1589
gaattcggcc aaagaggcct agaccaaact gcatcaattg ttggagaatc aaaagaactc 60
ttctgtaccc ctggcagagc atttgcagat taaagaagca tttgagaaag aagttggaat 120
cataaaagcc agcttgagag aaaaggaaga agaaagccaa aacaaaatgg aagaagtctc 180
caaacttcag tcggaggttc agaatactaa acaagcatta aaaaaattag agactagaga 240
ggtagttgac ttgtctaaat ataaagcaac aaaaagtgat ttggagacac agatttctag 300
cttaaatgaa aaattggcca atctgaatag aaagtatgag gaagtatgtg aggaagtttt 360
gcatgccaaa aagaaggaaa tatctgcaaa agatgagaag gaattactgc atttcagcat 420
tgagcaagaa attaaggatc agaaggaacg atgtgataag tccttaacaa caatcacaga 480
gttacaaaga agaatacaag aatctgctaa acaaatagaa gcaaaagata ataagataac 540
tgaactgctt aatgatgtgg aaagactcga g 571

<210> 1590
<211> 490
<212> DNA
<213> Homo sapiens

<400> 1590
gaattcggcc aaagaggcct acctcacgcc atgccccagc tcatggctta catccccatg 60
ccaggcagag ctggaacggg agcgggcaca gctgctggtc cgggccacga tggctgaaga 120
gcaactttct gagctacagg agtacgtgga ccagcacctg ggcaggtggg cagagggagc 180
tgggtgtgac cccagggccc tggtctggtt ggaatgaagg atgatggctg cctcaggcgc 240
taaaagcaga cctgtccaca gctgggcaag tcacttaagc atggttcctc tgagcaggta 300
caagcacgaa atcctgaggc tgaggaagct ggcaggtgca ggggacccct ggaaagtggg 360
ggctgtgcct ccagccaagc cccagcatcc aaggaccggc agccactagg ccgtctccca 420
aggagcagag cagagcagag ctcctcagcc agcacagaac cctcccaccc agccccccat 480
aaaactcgag 490

<210> 1591
<211> 569
<212> DNA
<213> Homo sapiens

<400> 1591
gaattcggcc aaagaggcct acagtttcta tgtagtgacc attttactcc tgactctctt 60
gacatcagat ggggtattcg atatttaaaa caaactgcag ttccaacaat attttctttg 120
cctgaagaca atcagggaaa agacccttct aaaaaaaaat cccagaagaa aaacttggaa 180
gatgagaaag aagtatgccc aaaagccaag tcagaagaat catttgtatt aaatgagaca 240
aagaaaaata tagttaacac agatgtgccc catcaacatc cagaattact tcattcatct 300
tccttggtaa agccaccagc tcccaaaaca ggaagtatac aaaataacat gttaactctt 360
aatctagtta aacaacatac tgggaaacca gaatctacct tggaaacatc agttaaccaa 420
gatacaggta gaggtggttt tcacacatgt tttgagaatc taaattctac aactattact 480
ttgacaactt caaattcaga aagtattcat caatctttgg aaactcaaga agttcttgaa 540
gtaactacca gtcatcttgc ttgctcgag 569

<210> 1592
<211> 575
<212> DNA
<213> Homo sapiens

<400> 1592
gaattcggcc aaagaggcct aggtgtatca agtaaggtgg cttcgtcctg ttcatcgcca 60
actaggggaa gcgaatgagg agtttgcact ccgtgtacaa cagctggtgg ccaaggaatt 120
gggccagaca gggacacggc tcactccagc tgacaaagca gagcacatga agcgacaaag 180
acaccccaga ttgcgccccc agtcagccca gtcttctttc cctccctccc ctggtccttc 240
tcctgatgtg caactggcaa ctctggctca gagagtcaag gaagttttgc cccatgtgcc 300
attgggtgtc atccagagag acctggccaa gactggctgt gtagacttga ctatcactaa 360
tctgcttgag gggccgtag ctttcatgcc tgaagacatc accaagggaa ctcagtccct 420
acccacagcc tctgcctcca agtttcccag ctctggcccg gtgacccctc agccaacagc 480
cctaacattt gccaagtctt cctgggcccg gcaggagagc ctgcaggagc gcaagcaagc 540
actatatgaa tacgcaagaa ggagattcac tcgag 575

<210> 1593
<211> 213
<212> DNA
<213> Homo sapiens

<400> 1593
gaattcggcc aaagaggcct aaaatactcc acctccttga gatcttcttt gatttgactc 60
tgactcttca tgtcagccac cactggttta gttcaggccc ttatcgattc ttatttggat 120
tattgtaata atttcctaac caggttcctt ttttccattc ttgtttctgg ctgtagtgtg 180
cattgctacc agaaagatac tgctatactc gag 213

<210> 1594
<211> 579
<212> DNA
<213> Homo sapiens

<400> 1594
gaattcggcc aaagaggcct agtcaacagc atttcttgtt ccaagatcac ccttctgagt 60
acctctctgg ctgccaaatt gccagggcct tcacagtttg attccatttc tcagctccaa 120
gcattaggta aacccaccaa gcaatcctag cctgtgatgg cgtttgacgt cagctgcttc 180
ttttgggtgg tgctgttttc tgccggctgt aaagtcatca cctcctggga tcagatgtgc 240
attgagaaag aagccaacaa aacatataac tgtgaaaatt taggtctcag tgaaatccct 300
gacactctac caaacacaac agaatttttg gaattcagct ttaatttttt gcctacaatt 360
cacaatagaa ccttcagcag actcatgaat cttacctttt tggatttaac taggtgccag 420
attaactgga tacatgaaga cacttttcaa agccatcatc aattaagcac acttgtgtta 480
actggaaatc ccctgatatt catggcagaa acatcgctta atgggcccaa gtcactgaag 540
catctttttct taatccaaac gggaatatcc aatctcgag 579

<210> 1595
<211> 111
<212> DNA
<213> Homo sapiens

<400> 1595
gaattcggcc aaagaggcct atatacactt tagtattatt gagtaaatag gacagtgttc 60
agtttgattt ttattctgat gtgttttaaa aaattcaggg tactactcga g 111

<210> 1596
<211> 722
<212> DNA
<213> Homo sapiens

<400> 1596
gaattcggcc aaagaggcct atttttttgt gtttttagtg gagacggggt ttcactgtgt 60
tggccaggat ggtcttgatc tcctgacctc gtgatacacc tgccttggcc tcccaaagtg 120
gtaggattgc aggcgtgtgc caccacaccc ggcccagtaa ttctaatttt gccctttgcc 180
ttgtgatctt tgctttgacc tttgccttgt gatctttatt gccctttaaa gcatgtgatc 240
tttgtgacct actccctgtt catacacccc ctccccttttt aaagtcctta ataaaaacct 300
gctggttttg tggctcaggg gacatcatgg acctaccgat atgtgaggtc acccccagag 360
gcccagctgt aaaattcctc ctttgtactc tttctcttta tttctcagac tggccgacag 420
ttagggaaaa tagaaaggac ctatgttgaa atattggggg ctggttcccc cgataaaaat 480
gtaaaacagg acatttttac taagaaatat aaatatcttt tgtttctctg aaataagaag 540
tcaaaagtat ttaagcttca actcatagtc attaatgtct tagaattgta tcttatttag 600
agataattta gatattcaat gaatatccat cctttaattt agcatagcaa atttgaggg 660
tatagttaac aaaaagattt taaaaacctt taaaaatgtt tgtattagtc aggtatctcg 720
ag 722

<210> 1597
<211> 601
<212> DNA
<213> Homo sapiens

<400> 1597
gaattcggcc aaagaggcct agtgctactt cgtgatcatc ctcaaccaca tggtctctgc 60
ctccatgatc acgctcctgc ttcccatcct catcttcctc tgggccatgt tgtccgtccc 120
caggcccagc cgccggttct ggatgatggc catcgtctat actgaggtgg caattgtagt 180
caagtatttc ttccaatttg ggttctttcc ctggaataag aatgtggagg tgaacaaaga 240
taaaccgtat caccccccaa acatcatagg agtggaaaag aaggaaggtt atgttctcta 300
tgacctcatc cagctcctgg ctctgttctt tcatcgatca attttgaagt gccatggctt 360
atgggatgaa gatgacatga ctgaaagtgg catggccagg gaggaatcag atgatgagct 420
ctccctcggt catggcagga gggactcctc cgattctctc aagtccatca acctggccgc 480

gtctgtggag tcagtgcatg tgaccttccc ggagcagcag acagctgtcc ggaggaagcg 540
ctccggcagc agctccgagc catcccagag atccagcttt tcttcaaaca gatacctcga 600
g 601

<210> 1598
<211> 492
<212> DNA
<213> Homo sapiens

<400> 1598
gaattcgcgg ccgcgtcgac ctaagaagtc cagatactaa gagcaaagat gtttcaaact 60
gggggcctca ttgtcttcta cgggctgtta gcccagacca tggcccagtt tggaggcctg 120
cccgtgcccc tggaccagac cctgcccttg aatgtgaatc cagccctgcc cttgagtccc 180
acaggtcttg caggaagctt gacaaatgcc ctcagcaatg gcctgctgtc tgggggcctg 240
ttgggcattc tggaaaacct tccgctcctg gacatcctga agcctggagg aggtacttct 300
ggtggcctcc ttgggggact gcttggaaaa gtgacgtcag tgattcctgg cctgaacaac 360
atcattgaca taaaggtcac tgacccccag ctgctggaac ttggccttgt gcagagccct 420
gatggccacc gtctctatgt caccatccct ctcggcataa agctccaagt gaatacgccc 480
ctggtactcg ag 492

<210> 1599
<211> 430
<212> DNA
<213> Homo sapiens

<400> 1599
gaattcggcc aaagaggcct atttttttta agaactctaa agtttcccca agagcttggg 60
gtctttttga cttacacttt tgtaattaat gtatagtttt attacagtgt gatcacagaa 120
tatggccaat ttcttttgga aagaaattac ttacaatttt tttttggtag cctaatataa 180
aatcaagttt tgcaaacttt tcttatattt ttttcttaat gggctagaca gaagatcctt 240
ctctttaatt attcatttat tcatcgagga ttgtttccac catgtgtctc atacatgcca 300
ggcattgtat taggcattgc aggatataaa ataagtcata agctttgtct tagattggta 360
aagtttggat ggaacacaga cacatgtaga cctaattata atacagaaag aaatgcaacc 420
gcggctcgag 430

<210> 1600
<211> 401
<212> DNA
<213> Homo sapiens

<400> 1600
gaattcggcc aaagaggcct aggtataact caaacttttt gtggacattc ttttcaaaat 60
tttttaagaa ccctgtacta taaaaggttg agtaaaaaca ggaaagcgtg ctataagttc 120
aaatctgttg tattacccta aattagataa accaacctga attatagtag atttctcaat 180
agatgaggaa ctgaaaaata ctatgtaaaa tatcttccaa aatgcttttt atactttttt 240
tatttgtaat ttggtctatc taaaatgttc gttagcttaa cttaatgggc gttattggat 300
tcatatgact aacgtttcct cagtattgta atgcttgaaa tatttgaaag aaaaaatgtt 360
gtttttagt tgaaactggt atatataact ctgtgctcga g 401

<210> 1601
<211> 524
<212> DNA
<213> Homo sapiens

<400> 1601
gaattcggcc aaagaggcct atatgaatac tgcctcagcg tccatctgct tgtcctgttc 60
ccagcttgtc atgcttgact aacatatttt gaggcagtct tcacgcagct cctgttttca 120
tgttctgggt agataagacc ccataccctg agctgcttga ccacattact tctgctttaa 180
gcctcgggaa cctgataagg taacccccga gttcctgtgc tgagtctcgt gcttccttca 240
aatgaactaa tccaaccgtg ctgtgggaaa cccacctagg taaccccata aaggatccaa 300

cccacaggcc cctccgtttc tcgttcccca cctgctggtc gaaggagcag gtcctggatg 360
gctcctcccc tcttctcttt ggtcttgcca ggggtgctgt cctcttcctt ccagacctgt 420
gagtagtaaa cttgattcat tttgcagtct gagtgtccct cactgtgctg cacctgactg 480
caccaagccc taaaccgtcg attgaattct agacctgcct cgag 524

<210> 1602
<211> 496
<212> DNA
<213> Homo sapiens

<400> 1602
gaattcggcc aaagaggcct aggtcagcat gctgctcctc tgtcacgctc tcgctatagc 60
tgttgtccag atcgttatct tctcagaaag ctgggcattt gccaagaaca tcaacttcta 120
taatgtgagg cctcctctcg accctacacc atttccaaat agcttcaagt gctttacttg 180
tgaaaacgca ggggataatt ataactgcaa tcgatgggca gaagacaaat ggtgtccaca 240
aaatacacag tactgtttga cagttcatca cttcaccagc cacggaagaa gcacatccat 300
caccaaaaag tgtgcctcca gaagtgaatg tcattttgtc ggttgccacc acagccgaga 360
ttctgaacat acggagtgta ggtcttgctg tgaaggaatg atctgcaatg tagaattacc 420
caccaatcac actaatgcag tgtttgccgt aatgcacgct cagagaacat ctggcagcag 480
tgcccctcca ctcgag 496

<210> 1603
<211> 350
<212> DNA
<213> Gallus sp.

<400> 1603
gaattcggcc aaagaggcct acatcttctt aatatcagaa acaattctga ctgaggtttt 60
gactgatctt cattttcatg acagtgggat tttttctccc aacaatgaaa aggaagaacc 120
ttttcctaag cctattgctc tgctacagtt tgctcagagc tgccagttct cacctcataa 180
tcgaggagaa gacagaatgc aacctttcaa agagcaacaa aatgaacctc ccagatctcc 240
cacccatctc cattgtagat ttaactaaaa gatcccagaa agtcagcaga aaagaggcag 300
agaataagaa atcttccaag aaaaatgctg aactgaaggc acgtctcgag 350

<210> 1604
<211> 276
<212> DNA
<213> Gallus sp.

<400> 1604
gaattcggcc aaagaggcct aaaaacattg ctccaaaaaa ttactgaagc atctaaagga 60
tttcagatgg aaaaaataga agacgggtat gaaaatatga accaattcac agtgaacctc 120
agtagagaag aaaagataat acgagaaatt gattttgaca gagaggagga ggcagaagag 180
gaagaggagg agacagtaga aggggaagat ctggatgaag ttcacacgga gtcatcggga 240
gaggaggggg aggaagaaga gaaggagggc ctcgag 276

<210> 1605
<211> 272
<212> DNA
<213> Gallus sp.

<400> 1605
gaattcggcc aaagaggcct acgtcgattg aattctagac ctgcctctat tttctcttcc 60
tgtgttttat ggtcttccaa gtgttcagaa acatcagtgg aaagcagtcc agcctgccag 120
cgatgagcaa ggcccgccgc ctgcattacg aggggctgat ctttcggttc aagttcctga 180
tgctcatcac cctggcttgt gcagccatga cagtcatttt cttcatcgtg agccaggtga 240
cagaaggcca ctggaagtgg gggcgtctcg ag 272

<210> 1606
<211> 249

<212> DNA
<213> Gallus sp.

<400> 1606
gaattcggcc aaagaggcct aatctagatc tgctctcaga tgctccctcc cttcctgttc 60
tggatggccc ttatcctatt tccacctgag gtcaatggca cttccctaaa taagtttccc 120
aaagaaacaa caaaatgcaa cacccaccct gacaaaaagc cacacgatgc tacttttttt 180
gctcgtcgta tgcagcactg cagcccatgc agaaatgcca gattcccctc ttccaacccc 240
ccactcgag 249

<210> 1607
<211> 107
<212> DNA
<213> Mus musculus

<400> 1607
gaattcggcc aaagaggcct acaaaataac tagcaaccat gaagtgggtg gaatcaattt 60
ttttaatttt cctactaaat tttactgaat ccagaacaca actcgag 107

<210> 1608
<211> 416
<212> DNA
<213> Mus musculus

<400> 1608
gaattcggcc aaagaggcct acactttctt ctgctgatag tagacctgct gaagaccttt 60
ggaccagccg ctgagccacc atgatctcta ggctcctttc ccttctctgc ctccggctgt 120
gtgttgggca aacagacatt cctgaaaatg ggtctcctcc caagcccagc ctcagtgcct 180
ggcccagcac agtgcttccc accaagagcc acgtgacaat gcaatgtaag agccccaccc 240
cgagtaaata cttcatcctc aaaaaggaag gtttcgcttt gaattctgtg aagccatata 300
atttgacaga ggagacggct gattttcatt tcaccgacct acgacagaat gatggcggac 360
actacacctg tgaatactat agcaaatggc cccatgacac accgtcacac cccagc 416

<210> 1609
<211> 121
<212> DNA
<213> Mus musculus

<400> 1609
gaattcggcc aaagaggcct aggtttcttg gagcttccac aaacttaaaa ccatgaaaca 60
tctattattg ctactattgt gtgtttttct agttaagtcc caaggtgtca acgttctcga 120
g 121

<210> 1610
<211> 205
<212> DNA
<213> Mus musculus

<400> 1610
gaattcggcc aaagaggcct actgggacag tgaatcgaca atgccgtctt ctgtctcgtg 60
gggcatcctc ctgctggcag gcctgtgctg cctggtccct gtctccctgg ctgaggatcc 120
ccagggagat gctgcccaga agacagatac atcccaccat gatcaggatc acccaacctt 180
caacaagatc acccccaacc tcgag 205

<210> 1611
<211> 219
<212> DNA
<213> Mus musculus

<400> 1611

gaattcggcc aaagaggcct atgcactaac ttcaggaacc agctcatgat ctcaggatgt 60
atggaaaaat aatctttgta ttactattgt cagcaattgt gagcatatca gcattaagta 120
ccactgaggt ggcaatgcac acttcaacct ctttcttcag tcacaaagag ttacatctca 180
tcacagacaa atgatacgca caaacgggac acactcgag 219

<210> 1612
<211> 656
<212> DNA
<213> Mus musculus

<400> 1612
gaattcggcc aaagaggcct actctctgtc tctcgattac aatcatgatt tccagaatgg 60
agaagatgac gatgatgatg aagatattga ttatgtttgc tcttggaatg aactactggt 120
cttgctcagg tttcccagtg tacgactacg atccatcctc cttaagggat gccctcagtg 180
cctctgtggt aaaagtgaat tcccagtcac tgagtccgta tctgtttcgg gcattcagaa 240
gctcattaaa aagagttgag gtcctagatg agaacaactt ggtcatgaat ttagagttca 300
gcatccggga gacaacatgc aggaaggatt ctggagaaga tcccgctaca tgtgccttcc 360
agagggacta ctatgtgtcc acagctgttt gcagaagcac cgtgaaggta tctgcccagc 420
aggtgcaggg cgtgcatgct cgctgcagct ggtcctcctc cacgtctgag tcttacagca 480
gcgaagagat gatttttggg gacatgttgg gatctcataa atggagaaac aattatctat 540
ttggtctcat ttcagacgag tccataagtg aacaatttta tgatcggtca cttgggatca 600
tgagaagggt attgcctcct ggaaacagaa ggtacccaaa ccagccggca ctcgag 656

<210> 1613
<211> 166
<212> DNA
<213> Mus musculus

<400> 1613
gcagtctcag aagttcccca acattgtgct tctatatttc ctctctcagt tgagtctcac 60
catgcatcta gtcactcaaa ttagaaatgg tgtgcttatt tttggtatcc tttctctttc 120
catatccagt ctaatgccta tctatgctta ttctgaatcc ctcgag 166

<210> 1614
<211> 805
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (337)

<400> 1614
gaattcggcc aaagaggcct acttttcaga accttttta aagggttggt taactacctc 60
agtagcagag gattgaacta taccctgtct gtactgtaca tagaaaatct ttgtagataa 120
aagcaaggct tgttaaatat gatatgaggg taagatttta atataccaaa tgtaacattc 180
ttagttgcct ttagtttcag aggcttgtaa gacttcctca tgaccatcat aacaggcctt 240
gcttttgtcg tattttgtgg ctgaaaaagc agccttgctt cttcagatat tgtagttatt 300
tggatgtata atagtttagc aagatgttac ttttgtnaga catcagatgt tcaaaaaaaa 360
agtgcatccg aacttgtact aaatactgca gtgtcccttt ataaaaagtc agactaaaac 420
tgacaattgt acagcaaagc ctgacatttg gatattttga agtttttca taaatcatag 480
aaattagtat atggctgtag tttagctttt taggtaaaag gtatgtttca ttagtgcatt 540
tgttattgct gatcactata aaaatgtgaa tcagctttcc atttcttatg caggtcatga 600
taacttgtag aatagagtac aatcatttgt gctatgtttt taattttcta aagcaccttg 660
atgacagtga gtgttcagtg gtgaagcatc ctctattgaa tcaccctcaa aaaatttttt 720
tgccaagtcc taagttgata gcttaaagtc aaaagtaaaa ttatagttta agtaggactt 780
ggtgtaaaga aacaccccc tcgag 805

<210> 1615
<211> 111

<212> DNA
<213> Mus musculus

<400> 1615
gaattcggcc aaagaggcct agttttttca agggggaaca tggcaaaggt gttcagtttc 60
atccttgtta ccaccgctct gataatgggc agggaaattt cggcgctcga g 111

<210> 1616
<211> 549
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (26)

<220>
<221> unsure
<222> (130)

<400> 1616
gaattcggcc aaagaggcct agtttncggt atctgctgtt cacagctctc cactgtaatc 60
cgaatacttt gccagtgcac taatctcttt ggagataaaa ttcattagtg tgttactaaa 120
tgttaatttn cttttgcgga aaatacagta ccgtgtctga attaattatt aatatttaaa 180
atacttcatt ccttaactct ccctcatttg ctttgcccac agcctattca gttcctttgt 240
ttggcaggat tctgcaaaat gtgtctcacc cactactgag attgttcagc ccctgatgta 300
tttgtattga tttgtttctg gtggtagctt gtcctgaaat gtgtgtagaa agcaagtatt 360
ttatgataaa aatgttgtgt agtgcatgct ctgtgtggaa ttcagaggaa aacccagatt 420
cagtgattaa caatgccaaa aaatgcaagt aactagccat tgttcaaatg acagtggtgc 480
tatttctctt ttgtggcctt ttagactttt gttgccctaa aattccattt tattgggaac 540
cgcctcgag 549

<210> 1617
<211> 441
<212> DNA
<213> Mus musculus

<400> 1617
gaattcggcc aaagaggcct agcaggagcg gagggaacag gagcggaggg aacaggaacg 60
gaaggagcag gagcggcggg agcaggagca ggagcgtctt cgggccaaga gggagatgca 120
ggagagagag aaagccctgc gactccaaaa ggaacgactt cagaaggaac tggaggagaa 180
gaagaggaag gaagagcaac agcgcctggc tgagcagcaa ctgcaggagg agcaggcaaa 240
gaaagctaag gaggtggcag cagccaggaa agtcctgaac atgactgtgg atgtgcagtc 300
tcctgtttgt acctcatatc aaatgactcc acaaggaccc aaatccatcc ccaagatcag 360
cgtagacgat tatgggatgg acctaaatag tgatgactcc acagatgatg agtcccaccc 420
ccggaaaccc atccccctcga g 441

<210> 1618
<211> 110
<212> DNA
<213> Mus musculus

<400> 1618
gaattcgcgg ccgcgtcgac cagcttttgg taccatgagg tcacttcaga tgctgctcct 60
ggctgctctg cttctgggga cttttctgca gcatgccaga gctgctcgag 110

<210> 1619
<211> 503
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (66)

<220>
<221> unsure
<222> (106)

<400> 1619
gaattcgcgg ccgcgtcgac ggaccccgca cccccctccc ccacatccac atcacccgct 60
gtgcanccag gagaggaggc tcagggtgac gacctctccc cagacngcct gtccgagcag 120
ggcaaacagc agcccccgag cagcgcatgc gcagcctgtg ggcagcgggt gcacctggtg 180
cagcggtact tggcggaggg cagactctac caccggcact gcttccgatg tcggcagtgt 240
tccagcacgc tggtcccagg ctcttacagt agtgggcccg aagaaggcac ctttgtgtgt 300
gcagaacgct gcaccaggct gggtccggga agtcggtcag gaactaggct cctttcacag 360
caaaggcagc agccagcggc ggcagaagct aaagatgcag aggataatga cccaagcctg 420
agtgtggctg cagtggctga ggcagacagg ctccaggcca gctccgaggt acagttccac 480
accccaacca agcacacctc gag 503

<210> 1620
<211> 329
<212> DNA
<213> Mus musculus

<400> 1620
gaattcgcgg ccgcgtcgac actcaattaa ccatgggcga tggtgactcg ccaatgtgcc 60
tctctgccgt ttcattcaag ggaataagat gctggctgga caaactgtta ctttgggctc 120
ttacaatttc tatcacactt cagaatgctg cagtggattg tacgagggtg gaaaataacg 180
aattaccttc tccaaatctg aactcaagta tgaacgtggt caggatgggc caaaatgtat 240
ctctgtcttg ttccaccaag aacacatcag tagacatcac ctattcgctc ttctggggta 300
caaaatatct agaaagcaag aaactcgag 329

<210> 1621
<211> 267
<212> DNA
<213> Mus musculus

<400> 1621
gaattcgcgg ccgcgtcgac ccgagccaga gccaacatga agacagccac agtcttgttt 60
ctggtggctt tgatcactgt ggggatgaac actacctatg tagtgtcttg ccccaaagaa 120
tttgaaaaac ctggagcttg tcccaagcct tcaccagaaa gtgttggaat ttgtgttgat 180
caatgctcag gagatggatc ctgccctggc aacatgaagt gctgtagcaa tagctgtggt 240
catgtctgca aaactcctgt cctcgag 267

<210> 1622
<211> 263
<212> DNA
<213> Mus musculus

<400> 1622
gaattcgcgg ccgcgtcgac aacatgttgg gaacactgtt tggctctgcc ataggaggag 60
ctctggctgt ggcaggggca cctgtggccc tggctgccat gggcttcact gggacaggca 120
ttgcagctgc ctccatagca gccaagatga tgtctgctgc agcaattgcc aatggaggtg 180
gagttgcagc aggaagcctg gtagccacac tccaatcagc aggggtcctt ggactctcca 240
catcaacaaa tgcacacctc gag 263

<210> 1623
<211> 185
<212> DNA
<213> Mus musculus

<400> 1623
gaattcgcgg ccgcgtcgac cgattgaatt ctaaacctgc cttggttacc tttcctttcc 60
cctttaagag gaattagcta tagaaccgct ttgtaaagat gcttcttgat attttacttt 120
tgttcctttc cccaaccatt cccacttccc cttctctcca cagccccgat cccactccac 180
tcgag 185

<210> 1624
<211> 695
<212> DNA
<213> Mus musculus

<400> 1624
gaattcggcc aaagagccta ggcacaatga agtgggtaac ctttatttcc cttctttttc 60
tctttagctc ggcttattcc aggggtgtgt ttcgtcgaga tgcacacaag agtgaggttg 120
ctcatcggtt taaagatttg ggagaagaaa atttcaaagc cttggtgttg attgcctttg 180
ctcagtatct tcagcagtgt ccatttgaag atcatgtaaa attagtgaat gaagtaactg 240
aatttgcaaa aacatgtgtt gctgatgagt cagctgaaaa ttgtgacaaa tcacttcata 300
ccctttttgg agacaaatta tgcacagttg caactcttcg tgaaacctat ggtgaaatgg 360
ctgactgctg tgcaaaacaa gaacctgaga gaaatgaatg cttcttgcaa cacaaagatg 420
acaacccaaa cctcccccga ttggtgagac cagaggttga tgtgatgtgc actgcttttc 480
atgacaatga agagacattt ttgaaaaaat acttatatga aattgccaga agacatcctt 540
acttttatgc cccggaactc cttttctttg ctaaaaggta taaagctgct tttacagaat 600
gttgccaagc tgctgataaa gctgcctgcc tgttgccaaa gctcgatgaa cttcgggatg 660
aagggaaggc ttcgtctgcc aaacagcgac tcgag 695

<210> 1625
<211> 692
<212> DNA
<213> Mus musculus

<400> 1625
gaattcggcc aaagaggcct acgaagcact tggtcagacc caggaaactc ttctctagtc 60
gcatccagct cggtaccgag caccagagta atatggtctg caaggtgctc atcgccctct 120
gcatcttcac cgcaggactg agggtacagg gttcaccaac agtcccattg cctgtctctc 180
tcatgacaaa aagttcagca cctgtggcca cctggactac ctctgctcca cacactgcta 240
gggccaccac ccctgtagcc agtgccactc acaacgcctc agttctccgc accactgccg 300
catccctgac atctcagctc cccactgacc acagagaaga agctgtcacc agcccacctt 360
tgaagaggga tgtcaacagc acagactcct cacctgccgg gttcccctca acaagcagtg 420
atggccactt ggcacccaca cctgaggaac acagtcttgg aagtcctgaa gcaactgtgc 480
cagctactgg gtcacagtca cccatgctcc tgtcttctca ggctccaacc tcagcaacca 540
catcccccgc aacttcccta tcggagtctc tctctgcctc cgttacctct agccacaact 600
ctacggtggc caacatccag cccacagaag ctccaatggc acctgcgtca ccaacagaag 660
agcacagctc tagtcacaca cccagactcg ag 692

<210> 1626
<211> 130
<212> DNA
<213> Mus musculus

<400> 1626
gaattcggcc aaagaggcct agggctggat gttcaacaag atttgtgatt ccaaaataat 60
cttctctctt gggattttcc tctgtaaggt caaagccgtt gggtatgatg tacgagtccc 120
cccactcgag 130

<210> 1627
<211> 495
<212> DNA
<213> Mus musculus

<400> 1627

gaattcgcgg ccgcgtcgac ccctatgctg cctaggctga ccttgaactc ctgggctcaa 60
gcagtctacc cacctcagcc tcctgtgtag ctgggattat agattggagc caccatgccc 120
agctcagagg gttgttctcc tagactgacc ctgatcagtc taagatgggt ggggacgtcc 180
tgccacctgg ggcagtcacc tgcccagatc ccagaaggac ctcctgagcg atgactcaag 240
tgtctcagtc cacctgagct gccatccagg gatgccatct gtgggcacgc tgtgggcagg 300
tgggagcttg attctcagca cttgggggat ctgttgtgta cgtggagagg gatgaggtgc 360
tgggagggat agaggggggc tgcctggccc ccagctgtgg gtacagagag gtcaagccca 420
ggaggactgc cccgtgcaga ctggagggga cgctggtaga gatggaggag gaggcaattg 480
gaatgcgcgc tcgag 495

<210> 1628
<211> 602
<212> DNA
<213> Mus musculus

<400> 1628
gaattcgcgg ccgcgtcgac gggaacctag ctgatgatag ggggttccat ctcctaactt 60
gtccattttg ttgcatattc taaggaccca gacataggct tggtggcccg tctcttgttt 120
ttcctggttt atgactttcg gctttgtgga atacggctga gatgaaagga tttattgacg 180
atgcgaacta ctccgttggc ctgttggatg aaggaacaaa ccttggaaat gttattgata 240
actatgttta tgaacatacc ctgacaggaa aaaatgcatt ttttgtgggg gatcttggga 300
agatcgtgaa gaagcacagt cagtggcaga ccgtggtggc tcagataaag ccgttttaca 360
cggtgaagtg caactccact ccagccgtgc ttgagatctt ggcagctctt ggaactgggt 420
ttgcttgttc cagcaaaaat gaaatggctt tagtgcaaga attgggtgta tctccagaaa 480
acatcatttt cacaagtcct tgtaagcaag tgtctcagat aaagtatgca gcaaaagttg 540
gagtaaatat tatgacatgt gacaatgaga ttgaattaaa gaaaattgca aggaatctcg 600
ag 602

<210> 1629
<211> 167
<212> DNA
<213> Mus musculus

<400> 1629
gaattcggcc aaagaggcct agtggtagta atctgattga ctgaatgcat ggacattatc 60
atctgttgct agccctgagc ttagtgttga caatatattt ggtattgaca aagagtatgt 120
ttgctttagg cccaaaagat aagaaaatag gcatagtgga gctcgag 167

<210> 1630
<211> 639
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (61)

<220>
<221> unsure
<222> (622)

<400> 1630
gaattcgcgg ccgcgtcgac tcctgtggca aatacccgga ttaaaaggtc gtgaaaatac 60
ntgagataat catgaaggca actctcatct tcttccttct ggcacaagtc tcttgggctg 120
gaccatttga acagagaggc ttatttgact tcatgctaga agatgaggct tctggcataa 180
tcccttatga ccctgacaat cccctgatat ctatgtgccc cgtttgcgtc cagcctgaga 240
ccaccgtttc cctacgtccc accagggcta tggcctcatg cgacgagata aaagagcatc 300
cccgctcctt gtctatgtgt ggccatgttg gttttgaaag cttacctgat cagctggtcg 360
atagatccat tgagcaaggc ttctgtttca atattctctg tgtgggggag actggaattg 420
gaaaatcaac actgattaac acattgttta atactaattt tgaagaactc gaatcctcac 480

atttttgtcc atgtgttaga cttagagctc agacatatga actccaggaa agcaatgttc 540
gcttgaaact gaccattgta aatacagtgg gctttggtga ccaaatcaat aaagaagaca 600
gctatcaacc aatagttgat tnacatagat gatctcgag 639

<210> 1631
<211> 390
<212> DNA
<213> Mus musculus

<400> 1631
gaattcggcc aaagaggcct agctaaaggg gagatctgga tggcatctac ttcgtatgac 60
tattgcagag tgcccatgga agacggggat aagcgctgta agcttctgct ggggatagga 120
attctggtgc tcctgatcat cgtgattctg gggtgccct tgattatctt caccatcaag 180
gccaacagcg aggcctgccg ggacggcctt cgggcagtga tggagtgtcg caatgtcacc 240
catctcctgc aacaagagct gaccgaggcc cagaagggct ttcaggatgt ggaggcccag 300
gccgccacct gcaaccacac tgtgatggcc ctaatggctt ccctggatgc agagaaggcc 360
caaggacaaa agaaaatgga gggactcgag 390

<210> 1632
<211> 676
<212> DNA
<213> Mus musculus

<400> 1632
gaattcgcgg ccgcgtcgac ccccaaccat gcttctccta gatgcccaga cccagattca 60
tcacagtgtc ctgctgttga tcctgctgct gggacttaaa ggagccgctg ggaaagagtt 120
gaaggtgatc cagcctgaga aatcagtttc tgttcgtgct ggagggtcgg ctactctgaa 180
ctgcacagtt acatccctcc tccctgtggg gcccatcagg tggtaccgag gtgtaggaca 240
caggagaaac ttgatatatt cttacacagg agaacacttc cccagaataa caaatgtttc 300
agatactaca aacagaagaa acctggactt ttctatctgc atcagttatg tcacttttgc 360
tgatgctggt acctactatt gtgtgaagtt ccagaaagga ccatcagagc ctgacattga 420
gattcagtct ggaggcggca ctgagttgtt tgtccttgga gccgctggaa aagagttgaa 480
ggtgatccag cctgagaaat cagtttctgt tcgtgctgga gggttggcta ctctgaactg 540
cacagtgaca tccctcatcc ctgtggggcc catgaggtgg taccgaggtg taggacacag 600
gagaaacttg atatattctt acacaggaga acacttcccc agaataacaa atgtttcaga 660
tgctacaaag ctcgag 676

<210> 1633
<211> 203
<212> DNA
<213> Mus musculus

<400> 1633
gaattcggcc aaagaggcct agattctgcc ctaggatgct gactttcaac aagatgaaga 60
ctacaacttg ttcccttctc atctgcatct cccttctcca gctgatggtc ccagtgaata 120
ctgaggggac cttagaatct attgtggaga aaaaggtcaa ggaacttctt gccaatcgag 180
atgactgtcc ctccacactc gag 203

<210> 1634
<211> 213
<212> DNA
<213> Mus musculus

<400> 1634
gaattcggcc aaagaggcct atggatcatg acacttcttt ttcttggcac taccggcagt 60
cctgttcaga atgagcaagg ctttgtggag ttcaaaattt ctgggcctct gcagtacatg 120
tggtggtacc atgtggtggg cctgatttgg atcagtgaat ttattctagc atgtcagcag 180
atgacagtgg caggagctgt ggtaactctc gag 213

<210> 1635

<211> 226
<212> DNA
<213> Mus musculus

<400> 1635
gaattcgcgg ccgcgtcgac cgagtacagg tgagtaatat taggtgtgta atttagctaa 60
ctagttaaca ggtttgaatc tgatcctggt aaccttagct tctgaccttt gtctctgcca 120
acacagtagg aattcaggtt ctcacaactt ctttgcatct gctttagtta ctgctgctta 180
ggtagagcaa gacagcgctg caatgaaggg acaattattt ctcgag 226

<210> 1636
<211> 270
<212> DNA
<213> Mus musculus

<400> 1636
gaattcgcgg ccgcgtcgac gattgaattc tagaccccc cccttccaag ctgctgtgtt 60
gacgagactg cctgtctgcc tttcaggtgc tgctactgaa ctagatttcc ctgttgttac 120
agaggttatt agtatttatt ttaattttgc tataatgttg ttatgcttta ctgtgtattc 180
tttttgtgtt ttaacttaac agcctgcact aatgtgaata ccacccaact gtgggggtca 240
catctggaac cttgtaaccc tgtgctcgag 270

<210> 1637
<211> 213
<212> DNA
<213> Mus musculus

<400> 1637
gaattcgcgg ccgcgtcgac actctttgac atgttcccaa accagttccg gtttgtgggg 60
aatgcccaga acaccctggc ccagcccacc gtgtggctca ccatcgcgct caccacggct 120
gtctgcatca tgcctgtggt tgccttccgc ttcctcaggc ttagcctgaa gccggatctc 180
tccgacacgg tccgctacac ccagcacctc gag 213

<210> 1638
<211> 277
<212> DNA
<213> Mus musculus

<400> 1638
gaattcgcgg ccgcgtcgac acagaatgtt agcatcatca gtctggaagg tgaaaagaga 60
gatggtttgg aactgttttc ttttcttttg ctgctcccca tttcttcttt gcctccctcc 120
tgctgcgcag ctgcctctaa ggcagccccc caccctcgca gtaccttgca acaggctctg 180
gagattgagc tgcgcctcgc gaagcagttc ctctacactc gggggcctgc ccgaggagag 240
gaacacgttc actggctgtc gccatgacga cctcgag 277

<210> 1639
<211> 371
<212> DNA
<213> Mus musculus

<400> 1639
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagctca 60
cccttcatca ctgcccaggt ccccgtcctg gaaccacagc tgccaggcag tgtctttgac 120
cctattggcc acttcaccca gcccatcttg cacctgccgc agccggagct gcctcctcac 180
ctgccccagc cacctgagca cagcactcca ccccatctca accagcatgg ctgtggtctc 240
tcctccagct ttgcaaaatg agctgcccca acagccatct cggcccagta accgagctgc 300
tgctctgccc ccaaagccta cccgaccccc agctgtgtcc cgtgccctgg cccagccccc 360
cctatctcga g 371

<210> 1640

<211> 194
<212> DNA
<213> Homo sapiens

<400> 1640
gaattcgcgg ccgcgtcgac ggcatgaaaa aaagtgacat ctccacagta agccctgcta 60
cagagtctat gcgctactgc aaagccctac tgctaacaat ccaccctttc atccttgctt 120
ccatccgtcc ccatccaccc ttccaatcca tccatccact cattcatcca tccacctttc 180
catccatcct cgag 194

<210> 1641
<211> 539
<212> DNA
<213> Homo sapiens

<400> 1641
gaattcggcc aaagaggcct agtttctgta ctttttattg ggtaaaaatg gaattgaaca 60
gcaacctcaa cataagattt tttttctagt accctcccac tgattaaaga agcaagtttg 120
aggtttcatc cttcaaaagg gggttccgag agagcaccgt agggcttttc tcaaatagaa 180
aagccagatt ttgaaaaaat tttaaagata aaataggaca tattttgcag atatatatat 240
atatatacac aaacacatct ccaggtatag agaaccatcc agatgttcac ttttgaaaat 300
atctaatgat gcaaagtttt attcttgaac ttggacactg atgccatcaa acaattaaca 360
aatatattta agtactaaag gtgatttttt ttttaaagac tttttcaaat tgtcaaatga 420
tttaatgcag atgaacatat ttctatttta agtaacggga atctgtaaga atgtttgctt 480
gagatatggt taactttttt cttttgttgg ttttgactta gatggacacc atactcgag 539

<210> 1642
<211> 193
<212> DNA
<213> Homo sapiens

<400> 1642
cctaaaccgt cgattgaatt ctagacctgc ctcgagcata tatacccctt tttctcagtc 60
ttaagcatca aacaatttct gcctctttct ttttaattct cccagaggga tggttaatgc 120
atcacaattt aacttgtcta ttcaggtatt aatagtcaag ggatgcatct gtttgcttat 180
agtaccactc gag 193

<210> 1643
<211> 192
<212> DNA
<213> Homo sapiens

<400> 1643
gaattcgcgg ccgcgtcgac ggatctactg ccttcacacg cgctcctttt aacttaaaac 60
actgctttca ccttaaaaga gaaacaagag gaacacacgg acgccagaaa gagaatgacg 120
gaaacggagg tgtcatctcc agcagggtcc gaatcctcag atggaaccac aggccaccag 180
gccaaactcg ag 192

<210> 1644
<211> 958
<212> DNA
<213> Homo sapiens

<400> 1644
gaattcggcc aaagaggcct actgctcttc ataactgagt tgagtagttt ttcttgaatg 60
attacttttc aatttgttat acacctgtgc ccactttcct gagttctgat atagtggttt 120
gacatgtttg tctagttttt tcattgaatt ttggagagac gctctgttga gctcactcta 180
ctattccagc agttccccct ttacctttt actttatacc tttcttttag gttctcatat 240
ttttaagaga aatggtctta ttcatattat gtttttcttc acattattat gcttttactc 300
ttaatttata ggtgctcaga aacacttttt atgcagtgtt taaatgtttt tagaagcttc 360

ttaatcaaat atttccaggc cccttgaaca tagtagttgt tgagatattc attaaatgct 420
catttagtag agttttaaag gtttatttaa tatctgcttt gggtcaagta ctataaccat 480
agtgtgactt tagagcatgg actttgaagt tgaacgtgtg taagaatcct ctctctgtta 540
atggacatgt gaccttgaac aagttactta attcttctct tttgaatgtc ttcggccata 600
aaataaaact tcagaggagt aaatgtgact taaggcataa tatttgccct acattaagta 660
ttcagtaagt gataacttgt gagaatgtgt gagaagaatg tataataata gtttctactt 720
aattattaag gtaagtgaca gtattttctt tctttttctt ttaagagacg gggtcttgct 780
atgttgccca ggcttgtctt gaactcttgg cctcaagcag tgctcctgag tagctgggat 840
tacaaacatg agccactgca cctggctcat tttaaagatg gtaaaactca gattagagaa 900
ggaaagtaat ttggcatgat cgtactgtta atgagttcca gaaagaggag tactcgag 958

<210> 1645
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1645
gaattcgcgg ccgcgtcgac catagctaga acctggcagt gccagaattc aagccgaagc 60
taatgggctt tgaaggcaga gttcatctgc cagccttgtt gcttcttttt cttccctctg 120
ctgagaagca aggaacagag cagtgactgt atcccctggc tacacattag aattacctgc 180
aattcttttt tttttgaga cggagtctcg ctctgtaacc cctcactcga g 231

<210> 1646
<211> 450
<212> DNA
<213> Homo sapiens

<400> 1646
gaattcggcc aaagaggcct agcctgctga cgactttttt aaacttttat ttttaaatat 60
tttttagaat atcactaaaa tactgttgca atcattttaa gttcaaagtt ttaaaaccga 120
aaatcctata ttctctgaca gtaaattctg gtttctagaa agtagctcaa aaacaaatgc 180
gtcatcctct actttggaag gttccaaatg ataacagatt caaatctacc aagacccctc 240
atcccaacca aatgtctcta aataccaaga tctcagatta ccctggaatt tttttttttt 300
tttttttttt tttttttttt tttttttttt ggcttcaaat caagtttaat aaataaaaca 360
gcaaaggggg gttcaaggca gttatcactt cacagtgtgg tccttggtgg ggtgagggat 420
ggtcgagtcc aactcggaaa ggggctcgag 450

<210> 1647
<211> 120
<212> DNA
<213> Homo sapiens

<400> 1647
gaattcgcgg ccgcgtcgac ctggatttgt actctgtaga taccgcaaac attccttctt 60
tatttgtatg tctgtcttat gaaggcattt gagtttgtga cctctgctgt gctactcgag 120

<210> 1648
<211> 388
<212> DNA
<213> Homo sapiens

<400> 1648
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgagggtca 60
ggtctcctgg ggatggtggc ccacatgatg tattcacaag tcttccaagc gactgtcaac 120
ttgggtccag aagactggag accacatgtt tggaattatg gctgggcctt ctacatggcc 180
tggctctcct tcacctgctg catggcgtcg gctgtcacca ccttcaacac gtacaccagg 240
atggtgctgg agttcaagtg caagcatagt aagagcttca aggaaaaccc gaactgccta 300
ccacatcacc atcagtgttt ccctcggcgg ctgtcaagtg cagcccccac cgtgggtcct 360
ttgaccagct accacccttc ctctcgag 388

<210> 1649
<211> 334
<212> DNA
<213> Homo sapiens

<400> 1649
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgagggaaa 60
aaaaagccaa atttcttgtt gctacaggat ataacaacaa tgaaaaggat ctcgtatttt 120
aaaaaaatat gtaattttta taaaaagaaa acttgttttt cattcaaact tgtcattttt 180
actttggtaa ctttttcata ggtcctaaaa gaaaactgtt ttgagaaact actgtaagta 240
ccttttccac atccctttgc cttctcctct ttccaaattc tttctacaaa aataacactt 300
gatgctggaa aaacccatgc tacgtctcct cgag 334

<210> 1650
<211> 513
<212> DNA
<213> Homo sapiens

<400> 1650
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgaggaaaa 60
acgtgaagct gaagcaaaaa tgatggttgc taacaaacca gataaaatac agcaagctaa 120
aaatgaaata agagaggaaa ttgaagagtg ggaggcgaaa gtgcaacaag ggg aaagaga 180
ttttgaacag atatctaaaa cgattcgaaa agaagtggga agatttgaga aagaacgagt 240
gaaggatttt aaaaccgtta tcatcaagta cttagaatca ctagttcaaa cacaacaaca 300
gctgataaaa tactgggaag cattcctacc tgaagccaaa gccattgcct agcaataaga 360
ttgttgccgt taagaagacc ttggatgttg ttccagttat gctggattcc acagtgaaat 420
catttaaaac catctaaata aaccactata tattttatga attacatgtg gttttatata 480
cacacacaca cgcacccaag cacaccactc gag 513

<210> 1651
<211> 394
<212> DNA
<213> Homo sapiens

<400> 1651
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgaggggga 60
agaccagact gagcgatttg gaatccacat cctaatgctg ccacaagctg catgcacaaa 120
gaccttaggc acatctcttc atttctctgt acactggttt ctctactatg tgtgtattaa 180
aatatataat gtggatgata gtaaactgaa caaagcctta attttctccc aagctttgac 240
attgccaagg gcagttagga gacttcagga tcaagtttag gggacaagtt tttttctaat 300
actttcaaaa ggcccaagtg aagtgaggaa ggacacctca ctttctggct ctaaaagcat 360
ggtacatctc acaccaggat aaaagcacct cgag 394

<210> 1652
<211> 356
<212> DNA
<213> Homo sapiens

<400> 1652
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgagggttg 60
ataccttccc tcccaggctc cttaccttgg tctttttccct gttcatctcc caacatgctg 120
tgctccatag ctggtaggag agggaaggca aaatctttct tagttttctt tgtcttggcc 180
atttgaatt catttagtta ctgggcataa cttactgctt tttacaaaag aaacaaacat 240
tgtctgtaca ggtttcatgc tagagctaat gggagatgtg gccacactga cttccatttt 300
aagctttcta ccttcttttc ctccgaccgt ccccctccct cacccccacg ctcgag 356

<210> 1653
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (236)

<400> 1653
gcctgcgtca gattaaaaca ctgaactgac aattaacagc ccaatatcta caatcaacca 60
acaagtcatt attaccctca ctgtcaaccc aacgcaaccg ccatctcgaa gccagattcg 120
gcacgagggt gcatcgcggt gattgccaag gagaattacc ccctctacat tcgcagcacc 180
cctacggaga acgagctgaa gttccactac atggtgcaca catctctgga cgtggnggat 240
gagaagatct ccgcaatggg gaaggccctg gtcgaccaga gggagctgta cctgggcctg 300
ctctacccca cggaggacta caaggtatac ggctacgtca ccaattccaa ggtgaagttt 360
gtcatggtgg tagattcctc caaacacagc ccgctcgag 399

<210> 1654
<211> 333
<212> DNA
<213> Homo sapiens

<400> 1654
gaattcggcc aaagaggccg gaatttggcc ctcgaagcca agaattcggc acgggggcta 60
actggctgag aatcaagaaa taaattattt tgtgaaattg aattctgtta gtttctcctt 120
aatctgtatt tgtgtcagat tttcaattgt aaataacttt agcaatttgg agagtctatt 180
attgcctatc aaattgtgta tctgcacagt ttttggaaag ctagagaatg tgactttaca 240
agcttatttt ggtgcttgga gacaggtcgt gaaaaacgag tcatgtgact gagactcctc 300
aaaagtccac cactaattcc ttgttcactc gag 333

<210> 1655
<211> 314
<212> DNA
<213> Homo sapiens

<400> 1655
gaattcggcc agccaaagag gccggaattt ggccctcgaa gccaagaatt cggcacgagg 60
cataggattt gttcacatag tgttatgcat gatcttcgta aggttaagaa gccgtggtgg 120
tgcaccatga catccaaccc gtatatataa agataaatat atatatatat gtatgtaaat 180
tatagcactg agggccctgc tgccctgctg gaccaagcaa aactaagcct tttggtttgg 240
gtattatgtt tcgttttgtt atttgtttgt ttttgtggct tgtcttatgt cgtggcagac 300
caagtactct cgag 314

<210> 1656
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1656
gaattcgcgg ccgcgtcgac accgctcact cgggggaaat ggattcttta ccacggctga 60
ccagcgtttt gactttgctg ttctctggct tgtggcattt aggattaaca gcgacaaact 120
acaactgtga tgatccacta gcatccctcg ag 152

<210> 1657
<211> 251
<212> DNA
<213> Homo sapiens

<400> 1657
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctatcactat ctgcccgtgc 60
ccatggatga gatgggggg aagcaaggat ggggcagcca ccggcagtgg ctgggggccg 120
cgatcttggt ggtcctgttc ggggttacct tagtcatcct gacaatctac ttcgccgtca 180
cagcgaacag cgtggcctgt agagacgggt tgcgagcgca ggctgagtgc cggaacacca 240
cgccactcga g 251

<210> 1658
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1658
gaattcgcgg ccgcgtcgac ataatatttt acctaggttt taagttattt taatcagtta 60
gacaaattag ctagacaaaa agtatgagca agaagaaagt ctgtttgcag attgccgtta 120
tctgggcatt catgcttttg gcatttcatc taactatcca tttcctagcg gaaaatgggc 180
aagaagtact atgttcattt aaaaaccatc ttgaaattgt actcgag 227

<210> 1659
<211> 532
<212> DNA
<213> Homo sapiens

<400> 1659
gaattcgcgg ccgcgtcgac ctcgactgtt tcagtttttc actcttagca ggaatttgga 60
gatgactttt gatgacaaga tgaagcctgc gaatgacgag cctgatcaga agtcatgtgg 120
caagaagcct aaaggtctgc atttgctttc ttccccatgg tggttccctg ctgctatgac 180
tctggtcatc ctctgcctgg tgttgtcagt gacccttatt gtacagtgga cacaattacg 240
ccaggtatct gacctcttaa aacaatacca agcgaacctt actcagcagg atcgtatcct 300
ggaagggcag atgttagccc agcagaaggc agaaaacact tcacaggaat caaagaagga 360
actgaaagga aagatagaca ccctcaccca gaagctgaac gagaaatcca aagagcagga 420
ggagcttcta cagaagaatc agaacctcca agaagccctg caaagagctg caaactcttc 480
agaggagtcc cagagagaac tcaagggaaa gatagacacc cccaccctcg ag 532

<210> 1660
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1660
gaattcgcgg ccgcgtcgac aggcccagat gaataaacta attaaaatat ttaaagccca 60
tctgtttcat taacagatgc attttaaaac aaatatagtt acttttattg gttacctaaa 120
tctaaaatta ttttgatcaa tgatactaat gaaaatgctc gag 163

<210> 1661
<211> 423
<212> DNA
<213> Homo sapiens

<400> 1661
gaattcgcgg ccgcgtcgac cgagcgctgt acttttactt tgttctgttt taaaatgctg 60
actcttctaa gacccgtgca tttccacatg gaattaacca tcagtttgct aaattttta 120
aaatcttgtt aagaatttga ttgggaaggt cttgaggaag ctatagataa gtctgagtag 180
aactgacatc tttgtaacaa gtcttctaat ctatgaatgc ggtatatatc ttcatttgtg 240
taggtctttt taagttccaa taattttctg taatttggag tacagatttt acacatatct 300
ggttaaactt atacctgagt atttacaat tttactctat tatgcatggt acttgtccat 360
ttcatcttta tttgtattat tattttttta agatggagtt ttgctctgtc acccacgctc 420
gag 423

<210> 1662
<211> 138
<212> DNA
<213> Homo sapiens

<400> 1662
gaattcgcgg gccgcgtcga cgagttggtg tgtatttctt tcatatccaa tttcccgttt 60
tcctctgcct ctgacacctg cctctccttt tctccgtgct cacgttcttt catgcttagt 120

ttcctcagat ggctcgag 138

<210> 1663
<211> 307
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (35)

<400> 1663
gaattcgcgg ccgcgtcgac cacctactct acganacaca aagttctatg gtctcgaaga 60
agcccgtgcc tgtttaaaac tgatcctaac taaaaacaga cttgagtgga tatgagaatg 120
ttggttagtg gcagaagagt caaaaaatgg cagttaatta ttcagttatt tgctacttgt 180
tttttagcga gcctcatgtt tttttgggaa ccaatcgata atcacattgt gagccatatg 240
aagtcatatt tcttacagat acctcataaa tagctatgac tttgtgaatg ataccctggc 300
tctcgag 307

<210> 1664
<211> 231
<212> DNA
<213> Homo sapiens

<400> 1664
gaattcgcgg ccgcgtcgac cgagttctta gcattttcac agtggtaaag cacaaatatc 60
aggttcgagg cataaggtac aatgagacca cttcggaact tccgatgcat ttgttttctg 120
tctccgtgcc tccggcttcc caaagagatc caggtctttg cgtttccagg gcgtggggac 180
cccggccccc tatgccgcca cgccgccaca ccgcctcacc cctggctcga g 231

<210> 1665
<211> 292
<212> DNA
<213> Homo sapiens

<400> 1665
gaattcgcgg ccgcgtcgac cataaagaaa ggacacatat ttcaggtgat ggatattcca 60
agtacactga tttgattttt acaaattaca taaatgtatt aaattatcat aaaaataaga 120
aacaaaacaa taaactgaga aaaaaattta aatgacctac aacctaattt ttaatgcctg 180
catggtattc ttgtgtatta atgtgttatt tttacttaac caatttctta ctattgaagg 240
cctgtttact gtttttcact cttctaaacc acaatgcaat aaaaacctcg ag 292

<210> 1666
<211> 112
<212> DNA
<213> Homo sapiens

<400> 1666
gaattcgcgg ccgcgtcgac gtgtgtataa aagggtctaa ttctataaat tatttgtaaa 60
ataagttaat atgttatgtg tgtatgtgtg tgtgtgtgcg tgtgcgctcg ag 112

<210> 1667
<211> 501
<212> DNA
<213> Homo sapiens

<400> 1667
gaattcgcgg ccgcgtcgac aaatatttat caatactgat cagactttaa agaaattact 60
ttgtaaacct gctgactacc tgtatgtatt gtatatatat tatatattaa atatataata 120
tattgagatt ataaaagatg aaaatattga atccttataa tattttaagt tgcagaatgt 180

atgttaaaaa gtgacttgaa tgagatgtat ttgtatctag aaattttatt tctttttgga 240
atgagattaa aatacatttt gaaagttcag cagagtaagc aatttatttg tgttgcctat 300
gtgtgagtgt atttaaagtt ttatggacgc ttaatggttt ctcccaaatt aaaattcttt 360
ttctgtcatt tccaaaaatc agaatctttc cctctcaaat caggtctaca ggtatcatgt 420
atgcctttgt taaataggac ttgttttaaa tttgtagttt ctagaattag aaatattttt 480
gttttactgg ccaatctcga g 501

<210> 1668
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1668
gaattcgcgg ccgcgtcgac ctgttgcctg tataccttgt ttttctggtt tttgttgttt 60
ttctaattgt atttttgttt tatacgtcct gtgatattta tgctttaaag aggttctgtt 120
ttgatatgtt tccaggattt gtttcaagat ttagagttcc ttttagcatt cttgcactcg 180
ag 182

<210> 1669
<211> 295
<212> DNA
<213> Homo sapiens

<400> 1669
gaattcgcgg ccgcgtcgac agttcaccat aagctagaag ttgtgtcaaa ttgagtcaag 60
attgtggctt tctcagctct ctgatcccat tttgagagag acatagctgg gatagtattt 120
tgcttataat aggagtacaa tacatatctt ttgaatttat gcttaaccct tgagcacatt 180
ttttttaatg gcctggatca cgtttctctg ttttttgaca tgtttgtatg ttgcccattc 240
caattacttc ctactttcag cctatgctga agttcctcct ctggcaactc tcgag 295

<210> 1670
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1670
gaattcgcgg ccgcgtcgac gtatattaaa aaatatttaa catttaacaa agtcaacact 60
gagacaagta cttactaaaa tacaaagttt ttccattgaa aaaatactgt aattaaactt 120
gttaaaaata tgggtatata ttttactctt ttacaa 156

<210> 1671
<211> 298
<212> DNA
<213> Homo sapiens

<400> 1671
gaagaagtat cggatagaaa ttaagcctat gcatccaaat aactcacatc acacagtggc 60
ttctttggat gaattaaaag tatctatagg gaatataaca ctctccccag caatatctag 120
acacagtcca gtacagatga atcggaattt gtctaatgag gagttaacaa aatcaaagcc 180
atctgctcca cccaatgaaa aaggaaccag tgatttactt gcttgggacc ccctatttgg 240
accatctctt gattcatctt cttcatcttc actaacttca tcatcatcag ccctcgag 298

<210> 1672
<211> 270
<212> DNA
<213> Homo sapiens

<400> 1672
gaattcgcgg ccgcgtcgac gttcctttaa gtcatgactc ttaaagctct tctggtcaca 60
gccctagcct tgtgtcatgg cttcaatctg gacactgaac atcccatgac cttccaagag 120

aatgcaaaag gctttggaca gagtgtggtc cagcttggcg gaaccagtgt ggttgttgca 180
gccccccagg aggcaaaggc tgttaaccag acaggtgccc tctaccagtg tgactacagc 240
acaagccggt gtcaccccac ccccctcgag 270

<210> 1673
<211> 255
<212> DNA
<213> Homo sapiens

<400> 1673
gaattcgcgg ccgcgtcgac agcccacatt attattaata tatagaggga ccataaatta 60
ttattatttt tgccctgtga tataccatag aatacagtaa gatatatgag tcaaagtcac 120
ccactcctct gataaatcaa tttcattctg ctatttcatt ctcttccaat tttgctgtgt 180
aaattttcaa taacaaatct ttattgttga ttatacagta tgtatactac tatcttaatg 240
actaggcttc tcgag 255

<210> 1674
<211> 225
<212> DNA
<213> Homo sapiens

<400> 1674
gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgaaactttt cccattaaat 60
tcgctattta tatgagccag agtgattgat ctttcttatc tgcatattta accaaatcac 120
tcctctgttt aaaatccttc ctccagtatt aatatagcat ataaaaccat gcaaatctgg 180
aagcatgcta tctcttcaat cttattttca gccactcccc tcgag 225

<210> 1675
<211> 113
<212> DNA
<213> Homo sapiens

<400> 1675
gaattcgcgg ccgcgtcgac attttaaaaa ctgatcaatt tttcatgttt acataaagta 60
taaaaacatc tatcagtatg ctacatacca tgtttaaaac agcgatcctc gag 113

<210> 1676
<211> 159
<212> DNA
<213> Homo sapiens

<400> 1676
gaattcgcgg ccgcgtcgac ggcatcctaa aaatagtaaa cataagacct ttttttaatg 60
tgtgtgagat ggagtttggc tcttgttgcc caggctggag tgcagtggct attcataggc 120
atgatcatgt atttgcagcc tggaagtcct gggctcgag 159

<210> 1677
<211> 132
<212> DNA
<213> Homo sapiens

<400> 1677
gaattcgcgg ccgcgtcgac cgaagaaata atacagaaac ccatccaaaa agcaaaacaa 60
ggctcattta gattccttcc aattatgtgt tttctggcgc ttcttttcct tttcgttgct 120
gagctcctcg ag 132

<210> 1678
<211> 136
<212> DNA
<213> Homo sapiens

<400> 1678
gaattcgcgg ccgcgtcgac cccctcaaaa aatttactag aaacacatac gtttcctggt 60
tcttattact atgaaactaa attttgtcta ccttcttgat cgtttcatct caattttttt 120
ccttctcaca ctcgag 136

<210> 1679
<211> 454
<212> DNA
<213> Homo sapiens

<400> 1679
gaattcgcgg ccgcgtcgac gcctgtaatc ccagcaccag gaatttgaga ccagcctggc 60
caacctggtg aaaccctgtc tctactaaaa atacaaaatt agccaagtgt ggtagtgtgg 120
gcctatagtc ccagctactt aggaggctga ggcaggagaa tcgcttgaac ccaggaggca 180
gaggctgcag tgacacaaga tcatgccact gcactccagc ctgggtgaca gagcgagact 240
ctgtctcaaa aaaaaatttt tttttaaaa aaaggacgtg agtaacatgc cttagaggtt 300
gggagggagg aaaggctgtt tcctactggg gaaatcagaa aaggtttcaa ggaggaggta 360
acatctgagc tgggcttttg cttgcagaat gcggacccag aatgattgga gagcaggaag 420
agcaatccac atagaagaag cacagagcct cgag 454

<210> 1680
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1680
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctattact 60
cctaacccat ctacaaggag aaaaaaacca aatcattaat atgacttgga agatactttt 120
tcatcttgct ctggccacat tgcgtttctc atccctcccc attccttcac aggtacttta 180
ctctgacatg cagaacaagg agcagctccc tgaacacatc atgctctctc tcgag 235

<210> 1681
<211> 528
<212> DNA
<213> Homo sapiens

<400> 1681
gaattcgcgg ccgcgtcgac tgctgcagaa gggtgccact gatgaagtga gcgcaaacag 60
aagcagctct tctctattaa cagaattaaa cactacaaag tgtttctctg gaggggtgca 120
tttcactctt gctttcttat tttttgtggt ttgacctcag ctatcaccac tgggaagccc 180
aggaaaagct gctctgaata ttcattcact ggacaggtaa agactgggac ttcagaattt 240
tgaagacgat cttagactct tacacctgtg gtcttgctag atgtgttgat tcatgactct 300
ctcaatctgt accccaaaca ggaagggctt gggaagtaaa gtatgtaaac gtgtgttccc 360
ttaaggttag aattatgtat atgtgttata acctcttatt tgtagaaaat ggagaggcat 420
actggtaact aaggagctac aaatacagac aaggaaatga catatatcct aattttaaat 480
ctagattgag aaaaagggtg aaaagaatgt gaaaatatta aactcgag 528

<210> 1682
<211> 364
<212> DNA
<213> Homo sapiens

<400> 1682
gaattcgcgg ccgcgtcgac ttagcatcta tcaagggagc accatcatgt acggggcgct 60
gctgctgttt gagtcggagt tcgtgcacat cgtggccatc tccttcacct cgctgatcct 120
caccgagctg ctcatggtgg cgctgaccat ccagacctgg cactggctca tgacagtggc 180
ggagctgctc agcctggcct gctacatcgc ctccctggtg ttcttacacg agttcatcga 240
tgtgtacttc atcgccacct tgtcattctt gtggaaagtc tccgtcatca ctctggtcag 300
ctgcctcccc ctctatgtcc tcaagtacct gcgaagacgg ttctctcccc ccagactact 360
cgag 364

<210> 1683
<211> 180
<212> DNA
<213> Homo sapiens

<400> 1683
gaattcgcgg ccgcgtcgac ccaaaccata tcacatagtc tccctctttt tatgtttttg 60
ttatttgtgt tttgttttat gtttacccaa ataatcattt attttttatt aacatttatg 120
ggttatgttt accatataac ccatttttat accttactgt cctatcccca tcccctcgag 180

<210> 1684
<211> 285
<212> DNA
<213> Homo sapiens

<400> 1684
gaattcgcgg ccgcgtcgac cgtgagactt aagtccaaac ttgcgcttca gcaggtggaa 60
ctgctctttg acgtagtggt aaaactcgta ctcgtatctc atccgctggt agaggatctg 120
cacagcctca ggagagggga cagtcttctt caccgtcaca gtcatgtttc caagcttcct 180
gtgctctggg tctttgtaga tactgagcac gcccttgaag taatgaggta aaaatctttc 240
cagtaacagc agcacatctt ccaactcttc aagaatcccc tcgag 285

<210> 1685
<211> 283
<212> DNA
<213> Homo sapiens

<400> 1685
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctttttctc tttgcatttg 60
agtttcagaa atttctattg acatagcttc aaactcagag attattctct tggctgtgtc 120
cagtctactt atgagcctat caaaagcatt cttcatttct gttactgtgt tttttttatc 180
tctagcatgt ctttttatg atttcttagt ttccatccct cttcttcaag ggcagacaat 240
tccctactgt ctttgcatgt tgtccacctc cccccagctc gag 283

<210> 1686
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1686
gaattcgcgg ccgcgtcgac ctggtggttg gggtcaggaa ggggaaagag gaagtacaaa 60
taagcaacct ggacattttt attgtttttc tcttatctgt tagtctactt gaagagctat 120
ccttgaaagt gagtgcttta gatctatgaa actgggcagc tatcatagat ctaaaacact 180
cctcgag 187

<210> 1687
<211> 306
<212> DNA
<213> Homo sapiens

<400> 1687
gaattcgcgg ccgcgtcgac aaaactcaca gataacaaca gattttactg cagtcattgc 60
agagctcgac gggattctct aaaaaagata gaaatctgga agttaccacc tgtgctttta 120
gtgcatctga aacgttttc ctacgatggc aggtggaaac aaaaattaca gacatctgtg 180
gacttccccgt tagaaaatct tgacttgtca cagtatgtta ttggtccaaa gaacaatttg 240
aagaaatata atttgttttc tgtttcaaat cactacggtg ggctggatgg aggccacaag 300
ctcgag 306

<210> 1688
<211> 376

<212> DNA
<213> Homo sapiens

<400> 1688
gaattcgcgg ccgcgtcgac caaagcttcc aatagacctt tctctcccgc tatttttaac 60
attgatttta tcgaggccag tctctttagg agtcaagagc ttgtagacac tgtccctgtt 120
tcagttggtc accgaaaata ctcagtcccc tcaacacccc ctcttcctca tttagccaga 180
ttctgcttat tttaaacatt caacttccat ccctccttcc cgctgactac ccaccacact 240
ctgttcattc gcttcaactc tcaattgcta ttgtactttt atgctgttcc acacgattta 300
ccagttactc ataatatgtc ttgtattatt aatggatatt ttacacattc tagcttgcat 360
cccccaaagc ctcgag 376

<210> 1689
<211> 359
<212> DNA
<213> Homo sapiens

<400> 1689
gaattcgcgg ccgcgtcgac gacttgggac aagaagaaaa caagacatct tcacaaggaa 60
aaccaagtac taaaaaaagt atcctcccaa ctctgaagag atagaacaca aacatggccg 120
acagtggact tagggaacct caagaggact ctcaaaagga tttggaaaat gatccatcag 180
taaattctca ggcgcaggag accacaatca tagcaagtaa tgctgaagaa gctgagatcc 240
tacactctgc ctgtggtctt agcaaagacc accaagaggt agagacagaa ggtccagaaa 300
gtgcagatac aggtgataaa tcagaaagtc cagatgaagc aaatgtgggg gatctcgag 359

<210> 1690
<211> 130
<212> DNA
<213> Homo sapiens

<400> 1690
gaattcgcgg ccgcgtcgac tcgattgaat tctagacctg cctcgagaaa tgccgatgga 60
aaaccagaga gaggcccctg cacataagaa gccccagcga gtgacccaga gagaaacagc 120
gggactcgag 130

<210> 1691
<211> 656
<212> DNA
<213> Homo sapiens

<400> 1691
gaattcgcgg ccgcgtcgac tgtattagtc catttttatg ctgctgataa ggacataact 60
gaaactgggt aatttttaaa gaaaaagagg tttaatggac tcacagttcc acatggctgg 120
ggaggcctca caatcacacc agaaggcaaa agccatgtct tacatggagg cagataagag 180
agaatgagaa ccaagcaaaa ggggtttcct cttataaaac catcagatct cgtgagactt 240
actcactacc atgagaatgg tatggggcaa ccgcccccat gattcaatca tctcccactg 300
agtccatccc acaacacatg ggaactatgg gaactacaat tcaagatgag atttcaatgg 360
ggacacagtc aaaccatata aacacatttt ctaaattatc agtcaaaaaa caaatcataa 420
taaacataca aatatttgtt gctaaatgat aaatatcaca aaagttgtgt aatggagcaa 480
aagttgtata tagagaggtt tataccctaa aatgtctatg ttagaaaaga aggttgaaaa 540
tttaaaacat aggtattaga tacacagtag gaaaagagta aacccaaaga acatggagga 600
aaaagataat ataggaaagg ggagaaatca atgaagtaga aaaccatctc cctata 656

<210> 1692
<211> 240
<212> DNA
<213> Homo sapiens

<400> 1692
gaattcgcgg ccgcgtcgac attaaagaat atcagaaaag tatatggaag gtgtatgtgg 60

tatcgtttac ggttattaaa accccagcca aatattattc ctacagtaaa gaaaatagtt 120
ctgcttgcag gatgggcatt gttcttattc cttgcatata aagtttccaa aacagaccga 180
gaataccaag aatacaatcc ttatgaagta ttaaatttgg atcctggagc caatctcgag 240

<210> 1693
<211> 217
<212> DNA
<213> Homo sapiens

<400> 1693
gaattcgcgg ccgcgtcgac catactttta tggttttgta tttcgcattt aaatgtttga 60
cacttttgaa atgtttccaa atggctatgc agttattcca acatcattta ctgaactgtc 120
ctataatttg ggttatcttc tttatcatat tccgaattac catagtagtt ggacctattt 180
ctggattttc tattttgttt catgggcagc gctcgag 217

<210> 1694
<211> 304
<212> DNA
<213> Homo sapiens

<400> 1694
gaattcgcgg ccgcgtcgac tcgattgaat tctagacctg cctcgagggg gtaatgacac 60
agtttttaaa agaggagaaa taatagatac tatagaggag aagggaaaga aaatgaaaga 120
gaggaaaatg tggaagagag aaatagagag aaaaatttct taaaaatcag aggaaaaaat 180
gggggcttgc tataaggaaa tagattttat gagaataact ttaaaaataa atatagataa 240
taataataat aaataccttt aaaggcaggc taaaaaaatg cattctctct ccattacccct 300
actc 304

<210> 1695
<211> 396
<212> DNA
<213> Homo sapiens

<400> 1695
gaattcgcgg ccgcgtcgac aataaacaaa caaccaaagt gataaatgga tagttaaggg 60
aggttgtctg aacagggatt ataattagtt tacatacata ctccttaaac agataaatac 120
attacacctt tcaaagaata aatgaaaaat agagagacat acctggctcc aaaacaaggc 180
tgtatcttct gccactgtaa taaaatagat gcaattgagg ttcataaata aaagaataaa 240
tacttaaacg tgaaaggtga ctaaatgcgg ggaagaaaga ttgcaaataa atacatgggc 300
caaagatgtt tggtttgccc atggagtttt aattaaaaaa attaataagg aaaacaaata 360
cccaaaataa ggaagactga caaatgtgag ctcgag 396

<210> 1696
<211> 215
<212> DNA
<213> Homo sapiens

<400> 1696
gaattcgcgg ccgcgtcgac ggactaatcc ccttcgttgc tccaccactg gtcatgctga 60
tgacaaaaac ttatattccc atattagctt ttactcagat ggcttatgga gccagtttcc 120
tatctttctt gggtgggatc agatggggtt ttgctctacc agaaggtagt ccagccaaac 180
cagactacct taatttagct agcagcgagc tcgag 215

<210> 1697
<211> 157
<212> DNA
<213> Homo sapiens

<400> 1697
gaattcgcgg ccgcgtcgac aggacaagcc cccaacgctt actaaattct gtgaaagcat 60

gtggagattc acattttatt tatgtatatt ctgctatgga attagatttc tctggtcgtc 120
accttggttc tgggacatcc gacagtgcag gctcgag 157

<210> 1698
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1698
gaattcgcgg ccgcgtcgac taaacattga tgaacttgat tatattttgg tgcagagctg 60
aactgcttta tcagatggga agttttgtct catgttcact aaatccaagt aagtttaccc 120
tagaattatt aaaaacagag agaagttcta gtttcatgtc tttcacgctt ctgaacaaca 180
actttttgtg ctatctgttc tctgatttac acccaccaga actcgag 227

<210> 1699
<211> 148
<212> DNA
<213> Homo sapiens

<400> 1699
gaattcgcgg ccgcgtcgac ggggaataaa ccaagtgact gtgtacccta caaagatgaa 60
gaactttatg atcttccagc tccttgtact cctttgtccc ttagttgcct tcagctcagt 120
actccagaaa atagagagag cgctcgag 148

<210> 1700
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1700
gaattcgcgg ccgcgtcgac gttgattttt attcttcctt ctgccttcta tatcaagttg 60
gtgaagaaag aacctatgaa atctgtacaa aagattgggg ctttgttctt cctgttaagt 120
ggtgtactgg tgatgaccgg aagcatggcc ttgattgttt tggattgggt acacaagcac 180
ctcgag 186

<210> 1701
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1701
gaattcgcgg ccgcgtcgac caaaaggcgg tgtgaagtgt agtgtcatat aaaattaaga 60
aatgcagaga ttattttctg tggcactttt tttcccattt tcttccatta gatccctagg 120
cagaattaaa ttgtttagta catccttaat tctctgtaaa cacccactag cacctcctga 180
cctaaatctc ccagctcatc tcgag 205

<210> 1702
<211> 157
<212> DNA
<213> Homo sapiens

<400> 1702
gaattcgcgg ccgcgtcgac acatcaccct ctcctgtggt taaattgaga tggtggcact 60
ggctgtcttc tatattattg ctgcaccttt cctcaccagg ggtgcacaca aaactgggag 120
tgaagatgga atgagaagaa cagagaaaca actcgag 157

<210> 1703
<211> 443
<212> DNA
<213> Homo sapiens

<400> 1703
gagcatggtg gtgagcaggg acggtgcacc ggacggcggg atcgagcaaa tgggtctggc 60
catggagaca cggagggtcc tacgctcggg cggggggcag ctctcggggc tgctggtata 120
acctgcgcta cttcttcctc ttcgtctccc tcatccaatt cctcatcatc ctggggctcg 180
tgctcttcat ggtctatggc aacgtgcacg tgagcacaga gtccaacctg caggccaccg 240
agcgccgagc cgagggccta tacagtcagc tcctagggct cacggcctcc cagtccaact 300
tgaccaagga gctcaacttc accacccgcg ccaaggatgc catcatgcag atgtggctga 360
atgctcgccg cgacctggac cgcatcaatg ccagcttccg ccagtgccag ggtgaccggg 420
tcatctacgc gaacaatctc gag 443

<210> 1704
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1704
gaattcgcgg ccgcgtcgac catgtggcct tcttcccttt gtattatttt cctttcgtgt 60
gtgatgaaga gcaagatgag acaggcctta ggatttgcca aggaagccag agagagccct 120
gacacccaag cccttttgac ctgtgcagag aaagaggaag aaaacctcga g 171

<210> 1705
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1705
gaattcgcgg ccgcgtcgac ctcaaagaac acagtagcac ctaaatctgt tttcaattgg 60
gcttaaaaat tgacatgcaa tctcttaagt tttttgttca gctacttcac actgagtacc 120
tcaaatctgc tctggagtcg attatgccac ctgtgtgtca ggatgcacct gaaagccccc 180
agctcgag 188

<210> 1706
<211> 317
<212> DNA
<213> Homo sapiens

<400> 1706
gaattcgcgg ccgcgtcgac cttgaagtca ttatcatctt gctgctcatc tttctccgga 60
agagaattct catcgcgatt gcactcatca aagaagccag cagggctgtg ggatacgtca 120
tgtgctcctt gctctaccca ctggtcacct tcttcttgct gtgcctctgc atcgcctact 180
gggccagcac tgctgtcttc ctgtccactt ccaacgaagc ggtctataag atctttgatg 240
acagcccctg cccatttact gcgaaaacct gcaacccaga gaccttcccc tcctccaatg 300
agtcccgcat cctcgag 317

<210> 1707
<211> 169
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (45)

<220>
<221> unsure
<222> (123)

<220>
<221> unsure
<222> (126)

<220>
<221> unsure
<222> (150)

<400> 1707
gaattcgcgg ccgcgtcgac cccaaccaga tcggtgactc ctaanatctg agacaggaca 60
tcgtgactgc tggtagtaat atggtggtgc attgtttttt ccacccaaac ttaacatagc 120
ctnttnatac atttttatga aaaatttcan tgtcagctgc ctgctcgag 169

<210> 1708
<211> 116
<212> DNA
<213> Homo sapiens

<400> 1708
gaattcgcgg ccgcgtcgac ggactgtacc gtcctttaca aatgattctt atcaagtata 60
taatgtgttc agtactaact cttttcaact tctcactgtc aaacgtcccc ctcgag 116

<210> 1709
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1709
gaattcgcgg ccgcgtcgac tatgcatctc cctacaatta cctgctggaa ttcccttggg 60
ttacctccca tcttccttat gttcctttac tctttacctc caaggcccga tcaccacaac 120
caaacaaacg gcattcgccc tcaccacggc ctcgag 156

<210> 1710
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1710
gaattcgcgg ccgcgtcgac ctaaagaatt agatgaagtc aggagcatat tgtgaattta 60
gttatacatg gcacttggct tatgttcttt tcttcacctc aacctccttc aaatcttcct 120
tctctccctt tgggaccatc atggatacca cctctgctct ggaaccctac cttctgttcc 180
agctgagtgt ggtctcacct tcttttgaac cccttgaact cgag 224

<210> 1711
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1711
gaattcgcgg ccgcgtcgac aggaatcgct ccagagggca aaaccgtcca actaacgtta 60
aggaaaacac aatcaaattt gagggtgact ttgatttcga gagtgcaaat gcccagttca 120
accgagagga gcttgacaaa gaatttaaga agaaactgaa ttttaaagat gacaaggctg 180
agtagatggc tcgag 195

<210> 1712
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1712
gaattcgcgg ccgcgtcgac acattataaa acagggggaa agcagactga ccctcttttt 60
aaaagtttac cccctcttca actgaaccct aaagacactg tcatgaactg tgttgaatgg 120
tggaaatcag tatttctgtt tgtggtgttg ttatttgtta catctgtttc atgtctaggt 180
gttgtgggtg tggctgttga aggaagtttg cagtcttgca gcttttattc cctgtgtctc 240

gag 243

<210> 1713
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1713
gaattcgcgg ccgcgtcgac aggggggggag attaaggtcc agagagggca agctgcttgc 60
cccgtgggga gttgggtcat agtcaggatg aattgaggcc ttcagctggc aggggtgcag 120
ccctaggctg gcctggctga caggctggat gggcatggct agtgtctcga g 171

<210> 1714
<211> 225
<212> DNA
<213> Homo sapiens

<400> 1714
gaattcgcgg ccgcgtcgac tgttgttact gtattacaat tagtattcta aaggcagaag 60
cagaagtagc tgcttttttag caatagaatt gtttcagtat tttgctgctg tttaatgcgc 120
atcttcagaa aacttcccag tggcttcaag gaatttgggg atctctctgg caacaaattg 180
tgaaacatga aatttctgct gactttaata tatgaaaccc tcgag 225

<210> 1715
<211> 162
<212> DNA
<213> Homo sapiens

<400> 1715
gaattcgcgg ccgcgtcgac gtgaaaactc atatctgaaa gattataaat atactttata 60
tcaattttcc agagaactta aacttctaat aatattggta atattctcat ggttactatt 120
ttatattctt tcctgctttt tgtagctact ggtgtactcg ag 162

<210> 1716
<211> 172
<212> DNA
<213> Homo sapiens

<400> 1716
gaattcgcgg ccgcgtcgac atataggaaa ctaagcattg tattttttttt aacaaatcta 60
aaaaagcact atgaactaca ggtgtttgac tttcaaaata tattttgtat tgttaatatc 120
ttcacattgt gtgaatactg gaagctgcag atctttgcta ggagcactcg ag 172

<210> 1717
<211> 146
<212> DNA
<213> Homo sapiens

<400> 1717
gaattcgcgg ccgcgtcgac gtttttcaca tactttgtct agtttatccc ccaaaataac 60
ctagtaaagt tgtatctcct tttatagata gtaaaattat gcttcataat ggtagattaa 120
cttgcacaat cctacgcgta ctcgag 146

<210> 1718
<211> 152
<212> DNA
<213> Homo sapiens

<400> 1718
gaattcgcgg ccgcgtcgac ctttttcttt ccttcccaat tccttgcact ctaaccagtt 60

cttggatgca tcttcttcct tccctttcct cttgctgttt ccttcctgtg ttgttttgtt 120
gcccacatcc tgttttcacc cctgaactcg ag 152

<210> 1719
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1719
gaattcgcgg ccgcgtcgac ggtgcctctc tagcctgcac aaatgattga caagagatca 60
cccaaaggat tatttctgaa ggtgtttttt ttctttattt tttttttttt ttttttttttc 120
tttttttcttt tttttttgca catgacagtg tttgtattga ggaccttcca aggaagaggg 180
atgctgtagc agtggtgcct gggtgcctgg cctccagtgt cccacctcct tcaccacccc 240
tcgag 245

<210> 1720
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1720
gaattcgcgg ccgcgtcgac ccactcacca ccaagaaata attagattct gtagacaaaa 60
tatatagtaa tttctctgta ccagagcagt tcttaaatat ctgtttgaat gttgtttctg 120
gtgggggttt ttctcttttct gatttgtcat tttaaaggtg tagacttagc cactgaggag 180
gtggccagcc gactcgag 198

<210> 1721
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1721
gaattcgcgg ccgcgtcgac gaaataatgc aatttctaat tatctggatg ttcgttgaaa 60
atatattaga cattctccct gaggttaaaa acaaaaagta cgtgaccagt ctggtaagaa 120
gtattaatga agtagctaat attacagctt cattttctac tagcacctat cataatggtc 180
ttagtcattt cacacaaatc agaacactcg ag 212

<210> 1722
<211> 415
<212> DNA
<213> Homo sapiens

<400> 1722
gaattcgcgg ccgcgtcgac gctctatgca atcatgtatg tttatttttc ttttgttgct 60
tgtgctttta gggtcatatg caagaagtga tacaaccctg aaacctaggc cagtgtcatg 120
gagtttttca cctgtgtttt cttctactgg ctttacagtt tcaggcctta caattaagcc 180
cttgtctatt ttgaatggat ttttgtgtag ggacattccc tccacaaggg cttcctctgg 240
ccttgctgat gctcctccgt ctcccttgtg tcctctccac tccaccctct tcatgtggaa 300
gaacccttgg catcctcgtg tggcctctct gtcctatcca gccccccatg gtgacctcac 360
acttgcctct ctgacgtggg tctctctccc aaaccctctt ccaggtcctc tcgag 415

<210> 1723
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1723
gaattcgcgg ccgcgtcgac gtttctatgc ttcatggtat ttcaggtgtt tcggaacatc 60
agtgggaagc agtccagcct gccagctatg agcaaagtcc ggcggctaca ctatgagggg 120
ctaattttta ggttcaagtt cctcatgctt atcaccttgg cctgcgctgc catgactgtc 180

atcttcttca tcgttagtca ggtaacggaa ggccattgga aatggggcgg catcacagtc 240
caagtgctcg ag 252

<210> 1724
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1724
gaattcgcgg ccgcgtcgac ggggaatttg gcataatata ctttggctct ttgtgtctcc 60
tcatcactct gaatcaggat ctttccaatt cgtatggatc gacagcagtc tcgtaaacct 120
tgttccattg cctcaccgct tctcattatg ctgaccccac aatttccctt ctcaaatttc 180
actccttcat acttgtaccc tgttggagtg gtcaccatgc tactcgag 228

<210> 1725
<211> 257
<212> DNA
<213> Homo sapiens

<400> 1725
gaattcgcgg ccgcgtcgac gaccatcttc atccttccat gtaccctcca tttgtctccc 60
cacttcactc cctccctctt ttgttttctt tccccttctt cttttcttcc attcactatc 120
aggaagggca acctgtggag gccccagtca gcccaaaccc gagccaacag ggactagagg 180
cagcagcggc tgcaacagtg agtgaattaa aaccaacaaa ccatcacatt tcatttaaag 240
aggtggcgca cctcgag 257

<210> 1726
<211> 183
<212> DNA
<213> Homo sapiens

<400> 1726
gaattcgcgg ccgcgtcgac gaaaacagtg atgttccact tgtttgtttt tagcctactt 60
ccctttatgc tccccgctcc tgaaggatct cccgagttag cagggcctca tgtggatccc 120
caggcccggg gatctttgtc cagtgtccca gcccccagcc cacccctgcc caacactctc 180
gag 183

<210> 1727
<211> 137
<212> DNA
<213> Homo sapiens

<400> 1727
gaattcgcgg ccgcgtcgac acctgcccga gacgttattc aaagatgaat gagaaagttc 60
tattcttttt catcatttgt gtgatcaggt tgcaaaggac atgctctttc ctcgatgaaa 120
ctgatgtctc actcgag 137

<210> 1728
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1728
gaattcgcgg ccgcgtcgac taaaccgtcg attgaattct agacctgcct cgagccgggg 60
ggagctgcta agatgggttt gaactataat gctggcatcg gcattactca gatctttttt 120
gtttttttga tacagagttt cgctcttgtt gcccaggctg gagtgcaatg gcacgatctc 180
ggctcaccac atctcgag 198

<210> 1729
<211> 302

<212> DNA
<213> Homo sapiens

<400> 1729
gaattcgcgg ccgcgtcgac aaaacttcga gactcagatt gttgcgtctg atcacacata 60
ttataactca aaactagagc catctggcaa aaataagaat cgatcaaaga tttcaaacaa 120
agatcagtca aacaaaccag taaaaacttc agcgtcgagc agagttgaaa ctcatcagag 180
tgaagttgct cagtcatttt caggggaaaa agctaataca aaaactcaaa gaagccaaac 240
tcagaccatt ttagcaaatg ctgatacatc cactcctaca gattgttccc ctaacactcg 300
ag 302

<210> 1730
<211> 255
<212> DNA
<213> Homo sapiens

<400> 1730
gaattcgcgg ccgcgtcgac tgcaaaagga gatcacaccc ttgccccgct gagccccgtg 60
ataacaagtc actccagact aacctgtgtg ccagacattt gtgcattgtt gcactttgag 120
gttattattt atcaagttct tgaaggaagc agaaagaggg actcctctct ccctccgtgt 180
atagtctcta tgtttgtgct agtttttctt ttttttctct gtgtccagtc agccacaggg 240
cccgcatccc tcgag 255

<210> 1731
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1731
gaattcgcgg ccgcgtcgac ctttttggga attaaatcct tagtctacat gttggcagca 60
tctttacttg gcctgggttt gcacccaatt tctggacatt ttatagctga gcattacatg 120
ttcttaaagg gtcatgaaac ttactcatat tatgggcctc tgaatttact taccttcaat 180
gtgggttatc ataatgaaca tcatgatttc cccaacattc ctggaaaaag tcttccactc 240
gag 243

<210> 1732
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1732
gaattcgcgg ccgcgtcgac gaaattacag tttgtatctg tttcttagta ggtgtggcct 60
ttaaaatatg tgcttattca ttgttaaatt ccagaataat agagtaatac ttaatactgt 120
acattcccac ttacgtatat tttattaaaa tttataagca agaaattata cataagtggt 180
catgatctta gggagacttc tcgag 205

<210> 1733
<211> 115
<212> DNA
<213> Homo sapiens

<400> 1733
gaattcgcgg ccgcgtcgac ggatgcagtg gctattcaca ggcgcgatcc cactactgat 60
cagcacggga gttttgacct gctccgtttc cgacctgggc cggtcacccc tcgag 115

<210> 1734
<211> 484
<212> DNA
<213> Homo sapiens

<400> 1734
gaattcgcgg ccgcgtcgac agcaagtccc acgcacagtc ctgaaaaaaa ttttaatctt 60
cttttcttag aactatcttg gttggcatca tcaggccctg agagcacagt gcatgtcagc 120
atctaagatt ccacttttca aaatgaagga cctgatactg atcctatgcc tcctggaaat 180
gagttttgca gtgccgttct ttcctcagca atctggaaca ccgggtatgg ctagtttgag 240
ccttgagaca atgagacagt tgggaagtct gcagagatta aacacacttt ctcagtattc 300
tagatacggc tttggaaaat catttaattc tttgtggatg cacggtctcc tcccaccaca 360
ttcctctctt ccatggatga ggccaagaga acatgaaact caacagtatg aatattcttt 420
gcctgtgcat cccccacctc tcccatcaca gccatccttg aagcctcaac agccagggct 480
cgag 484

<210> 1735
<211> 278
<212> DNA
<213> Homo sapiens

<400> 1735
gaattcgcgg ccgcgtcgac cctaaaccat cacatagtcc tgttgtatgg catcccctcc 60
atcttgaaat gtcctctccc tcagttccta tatgttatca cacatgcctg ccttggcttc 120
tccctctagt tgttccttct ctgtcttctg tgggcttctt attgtctgct cactccttct 180
tcagtgtcct cacatgggct tccttcccct ctcagctgat gccatcacct ggggaatcac 240
agttactcag cagcactggg gcctctccat ctctcgag 278

<210> 1736
<211> 197
<212> DNA
<213> Homo sapiens

<400> 1736
gaattcgcgg ccgcgtcgac gatctatctt aggtggacaa agccatggaa tttgctatgc 60
ctaagtcctt cagggtcata gctgaaagaa gtatgcattc atggtacgtt tgttttttaa 120
tatgctttat tctgcatatt agtatcacat tacacagttt ggtcatggta tttgtaacct 180
ggagagaaca tctcgag 197

<210> 1737
<211> 424
<212> DNA
<213> Homo sapiens

<400> 1737
gaattcgcgg ccgcgtcgac cattttggag ccactgaatg gactggtgat gagacgaagc 60
aacctttaat tgggaccatg cttctccagt acattcgttt gtattccatg gtgtaaaccg 120
ggccttacgc gtggctccga ccttcggtgg aaatgcattt gcgtagcacc acccaggggc 180
tcccttgctt tggctagagc ctcataaaag accccaggtt ttgcgaagga ttttgaacac 240
cagcgtcttt taacatgtgg aactttcggt tttggtttag ctctgtgaac gtatttaaaa 300
cttgctacat tattccacag tgaaagttgg aaccttttta agagttatca tagagtgcct 360
tttaacatct gtcatatttt ctataaacaa cttttcagtg agaagcgtat atagtgtact 420
cgag 424

<210> 1738
<211> 438
<212> DNA
<213> Homo sapiens

<400> 1738
gaattcgcgg ccgcgtcgac cttcatgtgt ataacattac tgattgccag cctcatctgc 60
cttactttac cagtatttgc tggccgttgg ttaatgtcgt tttggacggg gactgccaaa 120
atccatgagc tctacacagc tgcttgtggt ctctatgttt gctggctaac cataagggct 180
gtgacggtga tggtggcatg gatgcctcag ggacgcagag tgatcttcca gaaggttaaa 240
gagtggtctc tcatgatcat gaagactttg atagttgcgg tgctgttggc tggagttgtc 300

cctctccttc tggggctcct gtttgagctg gtcattgtgg ctcccctgag ggttcccttg 360
gatcagactc ctctttttta tccatggcag gactgggcac ttggagtcct gcatgccaaa 420
atcattgcag cgctcgag 438

<210> 1739
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (34)

<400> 1739
gaattcgcgg ccgcgtcgac cgcggccgcg tcgncccaac acccgactct attggtgcat 60
ttaaaatgtg attccatttt ttcttacaat tcttcaggga acttacctgc attaagtgag 120
gttaaatgca ttcaggaggt tgtttcttct atctagtttt agaataatat ttcttcggca 180
aaccctgcta actgcggttc acccttgaaa acgttaatct gaggactttt tccaccaact 240
cattaatgat ggtggaagca agtgtattat ttgtttcctg gagaatttga tgaagagcag 300
tcttcctctg ctgcccttta ctaagcaaaa cctggagcag tttaaatagg ctaaatggtt 360
ttgattaaat cttgagctcc gagttggaag gagaaaatga gaagttaacc cctttccctc 420
gag 423

<210> 1740
<211> 279
<212> DNA
<213> Homo sapiens

<400> 1740
gaattcgcgg ccgcgtcgac cttttgcagt acagcagggg tgctgatcac caaggccctt 60
tttcctggcc tggtatgcgt gtgattatgt ttgtcccggt tcctgtgtat tagacatgga 120
agcctcccct gccacactcc acccccaatc ttcctttccc ttccggcagg gagtgccctc 180
tccataagac gcttacgttt ggacaatcaa ggtgcacagt tgtaagtgac cacaggcata 240
caccttggac attaatgtgc ataaccactt tgcctcgag 279

<210> 1741
<211> 158
<212> DNA
<213> Homo sapiens

<400> 1741
gaattcgcgg ccgcgtcgac tttctttaga aagttgtaga ttccaggttt gagattttat 60
tttatttaac ttgatttttg taagcattta gtaactaact gtaaatatcc ctcaagcttt 120
ttcttcctgt tttgaaacaa atgcgtttaa tactcgag 158

<210> 1742
<211> 444
<212> DNA
<213> Homo sapiens

<400> 1742
gaattcgcgg ccgcgtcgac caggcaccct tgcacagggt tgcatttctt tagtcttctg 60
tgggtctttt gatgtgggtt tgattttgct tttgcttttc tagctgagat ttcccaaggg 120
catcctcaga agctctgggt gtgccagagg acccccagaa ctaagaaggg agggcgagtg 180
ggtctccatt ccccgagaag ccaggggcag ggtgggatgg ggaagaccag gagcagagtc 240
gagcctcaca gaagccagcg cgggtctctg ctcagcaccc cagccggggc tctggaccca 300
gggtaacagc cccagttcat cccaacccct ctcagagcct caagaggggt agctcggctg 360
ccggaagaga ggggtgccct atccctggca acccctccac gtagcgtacc ccagcacctg 420
ccaccgcctt tgccatttct cgag 444

<210> 1743
<211> 225
<212> DNA
<213> Homo sapiens

<400> 1743
gaattcgcgg ccgcgtcgac tgctgctcca ctacagagga aacttcaaga aatgctggtt 60
tgctacagtg ttttagcttg tgagattctc tgggaccttc cctgctccat catggggtca 120
cctctaggtc attttacctg ggacaaatac ctaaaagaaa catgttcagt cccagcgcct 180
gtccattgct tcaagcagtc ctacacacct ccaagctcac tcgag 225

<210> 1744
<211> 274
<212> DNA
<213> Homo sapiens

<400> 1744
gaattcgcgg ccgcgtcgac gcaaaatgat ccctggtcaa gatctgttgc ccaagatgtt 60
acaggtcaca atgaccacat ttgaaattgt tttccctttc attttaccct gtgaaagcat 120
ctctcctaga gccttgcaag aggcaggtga cattgtgtcc atatttcttc ctgtttcaga 180
acttctgttt cacaacaatt tctctctcgc tacaagtatt ctttcactca gcactgggga 240
agttgggaac agctggtcac caccatccct cgag 274

<210> 1745
<211> 276
<212> DNA
<213> Homo sapiens

<400> 1745
gaattcgcgg ccgcgtcgac caggatgcca ccttgactac aactactttc caaaatgaag 60
atgaaaagaa taaagaagta tatatgactc cactcagggg tgtaaaagca acccaagcat 120
caaagtctac tcagctaaag actaacagag gacagagaaa agtgacagtt tcagctagga 180
cgaacaggag gtgtcagact gctgaagccg actctgaaag tgatcatgaa gttccagaac 240
cagaatcaga aatgaagatg agactaccaa ctcgag 276

<210> 1746
<211> 144
<212> DNA
<213> Homo sapiens

<400> 1746
gaattcgcgg ccgcgtcgac tttaagttgc catttgggga ataattgcag tatgtgtaga 60
gactctcttg ggatgcactt atatttttat ttaatgacta cttgttttct agttttgccc 120
acaacgtctg aaaccacact cgag 144

<210> 1747
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1747
gaattcgcgg ccgcgtcgac ccacgagtta gcacaagtgt attcaaccaa caacccctca 60
gaactccgaa acctggtgaa taagcacagt gaaaccttca ctcgcgataa caacatgggg 120
ctggtgaagc aatgcttgtc atctctttat aagaagaatc tcgag 165

<210> 1748
<211> 212
<212> DNA
<213> Homo sapiens

<400> 1748
gaattcgcgg ccgcgtcgac cgcttttcct aacaggctac tccttcctgt agagcagaaa 60
ttgtattttg cacgaacatg cagttattga agattaggat caaggataga caaggtatag 120
tagttatctt aaaatataca ctcctaagca gtattatttt aaaatccttt accctggcta 180
cctcccctac ccgggttccc ctcccactcg ag 212

<210> 1749
<211> 186
<212> DNA
<213> Homo sapiens

<400> 1749
gaattcgcgg ccgcgtcgac tggaccccag atgcttgtct tcctgagagt gattggaggt 60
ctccttgcct tggctgctgt gttccagatc atctccctgg taatttaccc cgtgaagtac 120
acccagacct tcacccttca tgccaacccct gctgtcactt acatctataa ctgggccaaa 180
ctcgag 186

<210> 1750
<211> 303
<212> DNA
<213> Homo sapiens

<400> 1750
gaattcgcgg ccgcgtcgac cacaaaataa tctacaaact tgattctctc ttgttcctgg 60
agtgtacttc ccaccgtcct tttaatcttt agatctaatc tcaagcagaa atttctctac 120
aaaccttttc cacatcttcc taagtcaaag cccgcattta tagattctca tagaaccatg 180
tataggtttg cggcacttgt cctgttaagt gtgaatctaa tcaagggcaa atggtgataa 240
aggcctcaca ttgctgctct gttttacaac tctagtaatt tttacctgac aaaaacactc 300
gag 303

<210> 1751
<211> 243
<212> DNA
<213> Homo sapiens

<400> 1751
gaattcgcgg ccgcgtcgac gattgaattc tggaccagcc gtgcaaatct ctagaagatg 60
acggtgttct ttaaaacgct tcgaaatcac tggaagaaaa ctacagctgg gctctgcctg 120
ctgacctggg gaggccattg gctctatgga aaacactgtg ataacctcct aaggagagca 180
gcctgtcaag aagctcaggt gtttggcaat caactcattc ctcccaatgc acaaatactc 240
gag 243

<210> 1752
<211> 256
<212> DNA
<213> Homo sapiens

<400> 1752
gaattcgcgg ccgcgtcgac cgaaagaatt gatggtgatg atgaaggcgc tgtgtcttgg 60
cgtgttctcc tacgtgaagg tggcagccag ctccctgctg catggcgggg gccggccggc 120
attgctggca gccggcgtgg ccatccaggt gggctctctg ctcggcgctg ttgctatgtt 180
ccccccgacc agcatctatc acgtgttcca cagcagaaag gactgtgcag acccctgtga 240
cccattgaac ctcgag 256

<210> 1753
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1753

gaattcgcgg ccgcgtcgac ctgtatttca gagtaaaatc tcctaaagga aataaaaaca 60
cagagttgta atacacatgc ttgcaaaaac attagtcgtg aaatccctag caacaagtca 120
ctggattttt ctctgtcagc acgcgtgtca gctgccaaag aatagactta atgaagaagt 180
gcccacatgc tggcaggggc ccccactcga g 211

<210> 1754
<211> 263
<212> DNA
<213> Homo sapiens

<400> 1754
gaattcgcgg ccgcgtcgac atttatttgt tgtatttaaa aaatacattg ttgtaagagt 60
gatttttca atatatttta ttcctggggg ggatcatgct acactctcaa aagaaaatta 120
agaaatcatt cagatcatcc cccctttta agtagtgtga attgcaaaac ccaacatatt 180
ttttttactg tcagttgcgg tttatttatt ctttaactgt ctggtttagt agtttaatga 240
ttatgaaaaa tgtatctctc gag 263

<210> 1755
<211> 150
<212> DNA
<213> Homo sapiens

<400> 1755
gaattcgcgg ccgcgtcgac ctgatacctg cctcatagag ttatgaggat taagtgtctc 60
ctacctttga atgtcttgct ccggtgtttc cctggagata tcttgtccaa gtatgaacag 120
cagtgttggc cacaaactca tcagctcgag 150

<210> 1756
<211> 257
<212> DNA
<213> Homo sapiens

<400> 1756
gaattcgcgg ccgcgtcgac tccagctcta tttaaaaagt aaagacaccc accgactcct 60
gatccccctc tttttctatg gagaacgttg ccttatactc tctacttcag atgatgaaca 120
ctgtgtactg tgtgtgcttt aaagaagttt tatttaattg ctcccttctt cctttccttg 180
ttattcacct ccctgatgcc tgctttcagt tgagggttgg gggcaatgat gagcatatga 240
attttttccc actcgag 257

<210> 1757
<211> 237
<212> DNA
<213> Homo sapiens

<400> 1757
gaattcgcgg ccgcgtcgac ggagtccacc gcgcaagcgc atcctggcct ttcttcagtc 60
cccacgtgcg atccttcccg gcaacttttt cgagaaaaat gcccaaattc aaggcggccc 120
gtggggtggg gggtcaggaa aaacatgcgc ccctggccga tcagatcctg gctgggaatg 180
cggtgcgggc gggggtccgg gagaagcggc ggggtcgcgg gacaggtgaa cctcgag 237

<210> 1758
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1758
gaattcgcgg ccgcgtcgac acgaaaacgg atgatcttga gcactatttc atggatggga 60
ggaaaaaatc catttttggg gattgcttac atcgctgttg gatccatctc cttccttctg 120
ggagttgtac tgctagtaat taatcataaa tatagaaaca gtagtctcga g 171

<210> 1759
<211> 585
<212> DNA
<213> Homo sapiens

<400> 1759
gaattcgcgg ccgcgtcgac cagagttttc cgagtgacct tcttgatgct ggctgtttct 60
ctcaccgttc ccctgcttgg agccatgatg ctgctggaat ctcctataga tccacagcct 120
ctcagcttca aagaaccccc gctcttgctt ggtgttctgc atccaaatac gaagctgcga 180
caggcagaaa ggctgtttga aaatcaactt gttggaccgg agtccatagc acatattggg 240
gatgtgatgt ttactgggac agcagatggc cgggtcgtaa aacttgaaaa tggtgaaata 300
gagaccattg cccggtttgg ttcgggccct tgcaaaaccc gagatgatga gcctgtgtgt 360
gggagacccc tgggtatccg tgcagggccc aatgggactc tctttgtggc cgatgcatac 420
aagggactat ttgaagtaaa tccctggaaa cgtgaagtga aactgctgct gtcctccgag 480
acacccattg aggggaagaa catgtccttt gtgaatgatc ttacagtcac tcaggatggg 540
aggaagattt atttcaccga ttctagcagc aaatggcaac tcgag 585

<210> 1760
<211> 274
<212> DNA
<213> Homo sapiens

<400> 1760
gaattcgcgg ccgcgtcgac tccgcttgga tattcgcatg ggcctacttt acatcacact 60
ctgcatagtg ttcctgatga cgtgcaaacc ccccctatat atgggccctg agtatatcaa 120
gtacttcaat gataaaacca ttgatgagga actagaacgg gacaagaggg tcacttggat 180
tgtggagttc tttgccaatt ggtctaatga ctgccaatca tttgccccta tctatgctga 240
cctctccctt aaatacaact gttcagggct cgag 274

<210> 1761
<211> 400
<212> DNA
<213> Homo sapiens

<400> 1761
gaattcgcgg ccgcgtcgac gagacatgaa ggttttagcc actagttttg tccttgggag 60
cctggggttg gccttctacc tgcctttggt ggtgactaca cctaaaacac tggccatccc 120
tgagaagctg caagaagctg tggggaaagt tatcatcaat gccacaacct gtactgtcac 180
ctgtggcctt ggctataagg aggagaccgt ctgtgaggtg ggccctgatg gagtgagaag 240
gaaatgtcag actcggcgct tagaatgtct gaccaactgg atctgtggga tgctccattt 300
caccattctc attggcaagg aatttgagct tagctgtctg agttcagaca tcttggagtt 360
tggacaggaa gctttccggt tcacctgtga ctcactcgag 400

<210> 1762
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1762
gaattcgcgg ccgcgtcgac ccaagccctg tgcagttgaa aatctgaata taggccacca 60
cacctggcct cgtttccttc atagttatat gttacctagt tttttgtttt gttttattta 120
tttatttgag acagggtctc actctattgc actccagcct gggcaacaag agcaaaactc 180
agtctcaaat aataataata acaacaactt aatgtgccag ctcgag 226

<210> 1763
<211> 184
<212> DNA
<213> Homo sapiens

<400> 1763

gaattcgcgg ccgcgtcgac gccttcccag caagaaagaa cgatctggga agtcccaccg 60
gcacaaaaag aaaaagaagc acaaaaaatc cagcaaacac aaacgtaaac acaaggctga 120
cacagaagag aaaagctcta aggcagagtc aggggagaaa tctaagaagc gcaagaaact 180
cgag 184

<210> 1764
<211> 519
<212> DNA
<213> Homo sapiens

<400> 1764
gaattcgcgg ccgcgtcgac caagatgtgg acagctcttg tgctcatttg gattttctcc 60
ttgtccttat ctgaaagcca tgcggcatcc aacgatccac gcaactttgt ccctaacaaa 120
atgtggaagg gattagtcaa gaggaatgca tctgtggaaa cagttgataa taaaacgtct 180
gaggatgtaa ccatggcagc agcttctcct gtcacattga ccaaagggac ttcggcagcc 240
cacctcaact ctatggaagt cacaacagag gacacaagca ggacagatgt gagtgaacca 300
gcaacttcag gagttgcagc tgatggtgtg acctccattg ctcccacggc tgtggcctcc 360
agtacgactg cggcctccat tacgactgcg gcctccagta tgactgtggc ctccagtgct 420
cccacgactg cagcctccag tacaactgtg gcctccattg ctcccacgac tgcagcctcc 480
agtatgactg cggcctccag cactcccatg acactcgag 519

<210> 1765
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1765
gaattcgcgg ccgcgtcgac ggaaaatatg ctgctttggt tgatattttt cacccctggg 60
tggaccctca ttgatggatc tgaaatggaa tgggatttta tgtggcactt gagaaaggta 120
ccccggattg tcagtgaaag gactttccat ctcaccagcc ccgcatttga ggcagatgct 180
aagatgatgg taaatacagt gtgtggcatc gaatgccaga aagaactccc aactcccagc 240
ctttctgaat tggaggatta tctttcctat gagactgtct ttgagaatgg cacccgaacc 300
aagctcgag 309

<210> 1766
<211> 201
<212> DNA
<213> Homo sapiens

<400> 1766
gaattcgcgg ccgcgtcgac ggggtttaga aattcattta taactggttc tctgatgtgg 60
gaaatcctga ttctgtcccg ggttctttgc tacttccttg aaaatactct agcttcatgc 120
tgggtcaagg tggtttacct ggatgacccc cctcccccgc cctcgcccca tcccaggtgt 180
gtgccacacc cagtactcga g 201

<210> 1767
<211> 205
<212> DNA
<213> Homo sapiens

<400> 1767
gaattcgcgg ccgcgtcgac gtggcgcatc tttatcttgg tttccacgag cagacgctga 60
agccatgatg actttgtgct tgctctcctt ccagttgttt atccctctgct tactccttga 120
cccagtgtct gtgtggtctg ggtcgcctcc gaggccgagt ccctcgttgc caagcccagc 180
aggcctcgct cccccgcgac tcgag 205

<210> 1768
<211> 215
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (87)

<220>
<221> unsure
<222> (103)

<220>
<221> unsure
<222> (166)

<400> 1768
gaattcgcgg ccgcgtcgac tcttgaaaga attttttttcg ttatttttac atctaacaaa 60
gtaaaaaaat taaaaagagg gtaaganacg attccggtgg gangatttta acatgcaaaa 120
tgtccccggg ggtttcttct ttgcttgctt tcttcctcct tacccnaccc cccactcact 180
cacacacaca cacacacaca cacacatcgc tcgag 215

<210> 1769
<211> 167
<212> DNA
<213> Homo sapiens

<400> 1769
gaattcgcgg ccgcgtcgac cccatgtact ggggaagcac agccaactac ctgggctggg 60
ccatcatgca cgccagcccc acgggcctgc tcctgacggt gctggtggcc ctcacctaca 120
taatggctct cctatacgaa gagcccttca ccgctgacta tctcgag 167

<210> 1770
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1770
gaattcgcgg ccgcgtcgac cttatgtttg ccgtttattc ccttcacaga aggcttggaa 60
tgtatttatt tatatttatt ttttcaaaat ccgaaatcat ttgcgagccg caatcgtcgt 120
ctgcctgtgt ggggggggccc agggcctgcc ttgcacgttg cagcctctct ggccctctcg 180
ag 182

<210> 1771
<211> 468
<212> DNA
<213> Homo sapiens

<400> 1771
gaattcgcgg ccgcgtcgac tagcaatcga tgttgctttc ctacccatgt attgtccaga 60
agatattcga acatctcaaa tagacacact gttgacctcc atgaattaca gctgtgcata 120
tccacaggac acaactggaa atgaccgatt gccaggtcca agagcggttg caggtgatat 180
tataaaagca gcaactgaac tggatagagt gcatatcgtc ggtatcttgg atatctgtaa 240
tttgggtaat aataaagtgg aagtctattt gcacaagatt tatagtccag agaatacttc 300
ttaaaagtta gcaaatgaaa ttattacaga ttatacgagt gtactgcttt aaagatattc 360
catcattttg ctggtaattt cagtaactgt tttcagcaag aatattacat gagctctaaa 420
gttattaagc agtttatgt tcgttttgtg tttagggaag ctctcgag 468

<210> 1772
<211> 347
<212> DNA
<213> Homo sapiens

<400> 1772

gaattcgcgg ccgcgtcgac tctactcaca taggcctaca tttttactta atatagattt 60
cgccatactt tcccaccagg tctgaagtta accactacag ttcacatttt ctgtttgttt 120
atttgtttt gtttttagag acaggatttt tctctgttac agaggctgga gtgcagtgtc 180
accatcatag ctcaagcaat actcctctct cagtctctag agtagctggg atgacagacg 240
tgcaccacca tgcctggcta attttttttg tagagatggg gtctctctat gttgcctggg 300
cttgtctcaa actcctggct tccagcaatc ttcccacccc tctcgag 347

<210> 1773
<211> 294
<212> DNA
<213> Homo sapiens

<400> 1773
gaattcgcgg ccgcgtcgac ctttcttctc tgatatcttt tggtaaaata tttgttacaa 60
taaccaagga gacaactttg agtaaatttc ccattatttt tgaagcctgt tgccccttct 120
gccagggaga aacttcaccg cctgggtcca tatactttca ctaattaact gagcaccagg 180
ttcctggaga aacatattta ttaaatgtca aaaatttggg gacatttagt cttcattttt 240
ggtcttctgt gtccagtggc atttttccta aattatgtcc agcatctcct cgag 294

<210> 1774
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1774
gaattcgcgg ccgcgtcgac gtccctggca ttttaggtgt cggttgggta ggcagtcatg 60
gatcaggtaa tgcagtttgt tgagccaagt cggcagtttg taaaggactc cattcggctg 120
gttaaaagat gcactaaacc tgatagaaaa gaattccaga agattgccat ggcaacagca 180
ataggatttg ctataatggg attcattggc ttctttgtga aattgatcca tattcctatt 240
aataacatca ttgttggtca gctcgag 267

<210> 1775
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1775
gaattcgcgg ccgcgtcgac cttaaagcaa actaagacca gagggaggat tatccttgac 60
ctttgaagac caaaactaaa ctgaaattta aaatgttctt cgggggagaa gggagcttga 120
cttacacttt ggtaataatt tgcttcctga cactaaggct gtctgctagt cagaattgcc 180
tcaaaaagag tctagaagat gttgtcattg acatccagtc atctcttcct aaggatctcg 240
ag 242

<210> 1776
<211> 243
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (22)

<400> 1776
gaattcgcgg ccgcgtcgac gnaccccatc aaacaccaag aacagatatc cccactccta 60
agaaacatta taggaatagt tcagattttc ttctgttaaa tgtcatccat cagctcaccc 120
gattttttcc agcagacctc ctcttctatc ttgtgtgttg ctttatatgt cgctcttgac 180
agctgctact atttatgcat gcatttctat agcaaaacct tgattaactg ggacacgctc 240
gag 243

<210> 1777

<211> 208
<212> DNA
<213> Homo sapiens

<400> 1777
gaattcgcgg ccgcgtcgac ctagaatgtg gccaggcaga ataatgacag tgactgtggt 60
gcttttgtgt tgcagtactg caagcatctg gccctgtctc agccattcag cttcacccag 120
caggacatgc ccaaacttcg tcggcagatc tacaaggagc tgtgtcactg caaactcact 180
gtgtgagcct cgtaccccga ccctcgag 208

<210> 1778
<211> 219
<212> DNA
<213> Homo sapiens

<400> 1778
gaattcgcgg ccgcgtcgac gtcacacaga tgcccacacc cctgtctctg cctgaatctg 60
tgttggagac tagcttgggg gacccactct ggctgtgccc actgctccat ccctggccca 120
ggccagcagc ctccagcact gggtgggagc tgaagccata tggcattcaa cctcccagat 180
tccaggctaa ctgcgaaatc ccgtgtggga ggactcgag 219

<210> 1779
<211> 194
<212> DNA
<213> Homo sapiens

<400> 1779
gaattcgcgg ccgcgtcgac tttatctgct ctgtcatata tttactaatt gtatggctgg 60
gaccaaaata catgaggaat aaacagccat tctcttgccg gggatttta gtggtgtata 120
accttggact cacactgctg tctctgtata tgttctgtga gttagtaaca ggagtatggg 180
aaggcaaact cgag 194

<210> 1780
<211> 343
<212> DNA
<213> Homo sapiens

<400> 1780
gaattcgcgg ccgcgtcgac cttttgctct ccggaattta agcacggggg cagcacattc 60
agaaggtttt tctgttcagg aacagttagc tactggtgga attctgtggt ttcctgacct 120
cactgcaccc gactccactt ggattctgcc tatctctgtt ggcgtcatca atttgttaat 180
agtggagatt tgtgctctac aaaaaattgg aatgtctcgt tttcagacgt atattacgta 240
ctttgtccgt gcaatgtcgg tgttgatgat accaattgct gcaacggtac cctcatcaat 300
tgttctctac tggttatgct ccagcttcgt gggcggactc gag 343

<210> 1781
<211> 337
<212> DNA
<213> Homo sapiens

<400> 1781
gaattcgcgg ccgcgtcgac ctaaagtgcc tttagcaaca gttacagtaa ttgatcaatc 60
agaaactaag aagaaggttt ttctgtggag gactgcagca ttttgggcat ttacagtgtt 120
tcttggagat ataattttac tcacagtcct agctttcaga atgctctcct tgaaatttct 180
cgtctgttcc ttttttctga agaacatgca tcctgaatgt tggatcatga aaagtcttga 240
atgctgtact agctcttcct ggctaggcag tggggaacca ctgtttttta atgttgttat 300
tcatgaggac caatggattg gcgtgacagt actcgag 337

<210> 1782
<211> 266

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (132)

<400> 1782
gaattcgcgg ccgcgtcgac atgcttttgt ctccacagca accagccact gcaggcagca 60
tgtctttcct cccctgctct ctgcttgcng ttgttttgac gctattctgc ttgcatgtct 120
tctggttggg angtggagtt gttgctggac tctcaggcga agctgaagtc attgaagtgt 180
gtgaagctct gtgcttgcat gagggcaagc aaggaatggc tgtgcctgag gctgctctgg 240
gaaactcctt gccccttaac ctcgag 266

<210> 1783
<211> 382
<212> DNA
<213> Homo sapiens

<400> 1783
gaattcgcgg ccgcgtcgac gtaatgtcaa catgatgttt cgctcagatc gaatgtggag 60
ctgccattgg aaatggaagc ccagtcctct cctgttctta tttgctttat atatcatgtg 120
tgttcctcac tcagcagtgt ggggatgtgc caactgccga gtggttttgt ccaacccttc 180
tgggaccttt acttctccat gctaccctaa cgactaccca aacagccagg cttgcatgtg 240
gacgctccga gcccccaccg gttatatcat tcagataaca tttaacgact ttgacattga 300
agaagctccc aattgcattt atgactcatt atcccttgat aatggagaga gccagactaa 360
atttgtgaa gcaaccctcg ag 382

<210> 1784
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1784
gaattcgcgg ccgcgtcgac cctaaaccgt ctattttttt ctagtgaatg tattttaacc 60
acagtgtcct aaactgagaa aactagagag gaaaaagtgg gtgttcatga actttgtagt 120
tgggagagtg gttttacatg tctgtgtatt catgactttg ggagtgggta ggatcattgg 180
agagagaact gcacagctcg ag 202

<210> 1785
<211> 224
<212> DNA
<213> Homo sapiens

<400> 1785
gaattcgcgg ccgcgtcgac ctgaaacaca aggaaagcta gaagaaaaac ttcaggagtt 60
ggaagcgaat cccccaagtg atgtatatct ctcatcaaga gacagacaaa tacttgattg 120
gcattttgca aatcttgaat ttgctaatgc cacacctctc tcaactctct cccttaagca 180
ctgggatcag gatgatgact ttgagttcac tgggcagact cgag 224

<210> 1786
<211> 221
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (91)

<400> 1786
gaattcgcgg ccgcgtcgac attctttgtc attatataag gcccctgttt gtctttattt 60
gtacgattgt tagtttaaag tccattttat ntgataggag aatggctatt cctgctcact 120
tttgttttcc attatttttt tttcacactt ttactttgta tctgaatgtg actttagcca 180
gtaggagagt gtcttgtaga gagcaagtgg tcggtctcga g 221

<210> 1787
<211> 181
<212> DNA
<213> Homo sapiens

<400> 1787
gaattcgcgg ccgcgtcgac ggacaattgc aacgactcca acaaaaccag ttcaaggctt 60
aggaactgtg tctcttagtt tcaagaaaat gaattggatt ttatttggta tatgtgtgag 120
tatgattaca gatcaagaca cacaccccta tacacaccca caccccccca cacaactcga 180
g 181

<210> 1788
<211> 207
<212> DNA
<213> Homo sapiens

<400> 1788
gaattcgcgg ccgcgtcgac ctctctttaa aaaacagtat ctagggtaaa tatactctaa 60
cctcttccca ggcaagtaga aaaaaggcag tctggagtca aacagtgagt tcagtttcca 120
gctaggacct tgtggcaacc ttatataaca tctgtaaacc atagttcctc cttatttaaa 180
atgaggataa tcgcactcgc cctcgag 207

<210> 1789
<211> 160
<212> DNA
<213> Homo sapiens

<400> 1789
gaattcgcgg ccgcgtcgac gtcttagttt gattggcttg tctttgaaaa tgtctccaaa 60
gcccactccc ttaactttct tgggctggat tgctgcagtt gccactgtcc cgttggcacc 120
ttcagacttg gtgctgcttg agtcaccccc aacactcgag 160

<210> 1790
<211> 191
<212> DNA
<213> Homo sapiens

<400> 1790
gaattcgcgg ccgcgtcgac agaacacaga tttttagcaa aaggctattt ggtgagttaa 60
ttggctgttt tgttctattt tgctctaatc ggtcagttat tcctagctag tctatgtatt 120
tacttatatc tgctgctttt ttgtactgtg ctgaagcttt atgtagcaag caacttagcc 180
gacaactcga g 191

<210> 1791
<211> 167
<212> DNA
<213> Homo sapiens

<400> 1791
gaattcgcgg ccgcgtcgac ctgccttaat tagaaagtct gccacttcca gaaagcctcc 60
acagcaagcc agagtcaagg cagtttcttg agtttcttct gtctgtgcat tgatatttgc 120

tccttgacca agaagtaatg ccaccatttc ttcatgtcct tctcgag 167

<210> 1792
<211> 213
<212> DNA
<213> Homo sapiens

<400> 1792
gaattcgcgg ccgcgtcgac aaataataaa gatcagaaca gagacaagtt agaaagaaaa 60
accatagggg aaaaaagtca gtaaaactaa gacttcaatt tttgaaacaa agaattgatt 120
tttgaaaaat aaaatcaaca aactcttgga ctaagaaaga ggacaaaatc agaaatgaaa 180
atggagaata tattacaaca ggtactcctc gag 213

<210> 1793
<211> 227
<212> DNA
<213> Homo sapiens

<400> 1793
gaattcgcgg ccgcgtcgac cttgattgga aagttttctg aaacaaagag acttactaat 60
ttttttgtt gttctatttg attcttgcat ctttgtccca catttctct ctttgtttct 120
ctctgtggct gttttatttt tactttgata tgcttttact tctttcttat gttgttttct 180
gtatctatac aggcatattc tttgtggtac gtgggggatg cctcgag 227

<210> 1794
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1794
gaattcgcgg ccgcgtcgac agactctcaa atataaaata tttgctacag tgtatatatg 60
gtacataatt gcttgttgct tttaaagttc cttctgttgt tctgcttccc actgatttca 120
taccagctca tgaatggatc attacagtct ctccagaggc ttagaatgat tcagaatgtt 180
caatgcacag atctcgag 198

<210> 1795
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1795
gaattcgcgg ccgcgtcgac gggaaatctt ttttttcccc ctagtaatag tttgataaga 60
aatttagtgt attgactgcc tcagtgacac aatttatctt taaaggtgtg gaagctggtg 120
gggaccaaat gttacctgtg tttttgctgt tgattgctat tttcagaagc aaaccatgtt 180
tttcacttac agtaggagtc aacaaatttg ggattttaga agggggagga gggagcggac 240
tcgag 245

<210> 1796
<211> 281
<212> DNA
<213> Homo sapiens

<400> 1796
gaattcgcgg ccgcgtcgac ctatttatgg gtaaaatctg taaaactggg tcagtttttt 60
ggacaatgtg ctgctgctta tcctatttct atatggtctc tgcttggggt ggttatgtat 120
ttatcatcaa tcttattcca ctgcatgtat ttgtgttgtt actgatgcag agatacagca 180
aaagagtcta catagcatat agcactttct acattgtggg tttaatatta tcaatgcaga 240
taccttttgt gggattccag ccaatcagaa cacatctcga g 281

<210> 1797

<211> 240
<212> DNA
<213> Homo sapiens

<400> 1797
gaattcgcgg ccgcgtcgac tgaaaaatcc attctcttgg tgtcactacc agtctgctta 60
gttttaagtg aaattccttt tatgtctact tggtttttac ttgtgtcaac atttagtatg 120
ctacctcttc tattgaagga tgaactccta atgccctctg ttgtgacaac aatggcattt 180
tttatagctt gtgtaacttc cttttcaata tttgaaaaga cttctgaaga agaactcgag 240

<210> 1798
<211> 281
<212> DNA
<213> Homo sapiens

<400> 1798
gaattcgcgg ccgcgtcgac ccctttattt catctgtatt taaacctctc tattccctgc 60
cataacatct tttgccacgt atagctggaa ttaagtgttg tcttggagct gttgtacatt 120
taagaataaa cttttgtaaa aaaagaaaaa tcttacagtg gctcatcatc tctttagttg 180
ttttcactaa gtcgttccta ccataactgt gaatttaaag taaaaccagc tcagaatctt 240
gccagagtct gttctttggt ccttgttcta cccatctcga g 281

<210> 1799
<211> 209
<212> DNA
<213> Homo sapiens

<400> 1799
gaattcgcgg ccgcgtcgac gtgtatactt aatagaggta attttttctt cccctagtta 60
tttctttccc attgaatcaa gttacataca agtttctaac cattcctgtt ataggctttg 120
gtgattgact tcattttaat aatcttttta tttcattgcc tttcacccag ttttttaaac 180
tcatgaaatt ccacacccca cttctcgag 209

<210> 1800
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1800
gaattcgcgg ccgcgtcgac gcaatactta agagtagttt gggtttattg aagatttttt 60
gctaggagag agaaaatttt ttgctaggag aggtttcaag gtaagagtat atactttaaa 120
catgtatata aatgtttttg ctacttttct gtcactacct ttcttacctt gtcctttaca 180
tggatatagg aagaaactcg ag 202

<210> 1801
<211> 131
<212> DNA
<213> Homo sapiens

<400> 1801
gaattcgcgg ccgcgtcgac cgaggccaac acacagaaat taaaagtaga aacaaaatga 60
gggcacactt gctcctgtcc ttggcttggc ccctccaacc tccaaaagaa ctgtcctccc 120
cattcctcga g 131

<210> 1802
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1802

gaattcgcgg ccgcgtcgac atttatctgt gaatggcagt cccactcaac tataaactat 60
ctgtatctta acacccagaa caaatctagg cactcagttg gcttctcagt ggtttttgt 120
ttgaatcccg tgtcctctga tgtatttgca ctattttgct ttattattta acttcttact 180
tatgtttttt gtctctgcag tagtatcact gcaggagagt gaagagttgg taagaaagtt 240
tcatcattta caggtgattc tcgag 265

<210> 1803
<211> 271
<212> DNA
<213> Homo sapiens

<400> 1803
gaattcgcgg ccgcgtcgac ggacaaggca ggggtaggca cactggtaag cttaggattg 60
aatagtttga gtaattttgt tggtctctgg gatctagggg ggattcgtaa ttgtctagtt 120
agggcagggg aatattgaat tggtgtatga gagtttggta aaggagatag ttgggagtat 180
gggctctgga ttggttggtt tgtatatgaa aggcatgctt gcagtggagt ttatcatcta 240
tgcattagct tgccctggga ggggcctcga g 271

<210> 1804
<211> 180
<212> DNA
<213> Homo sapiens

<400> 1804
gaattcgcgg ccgcgtcgac gtatttttaa attttgtaat ttaataacta cttttgaatg 60
aaaacattac ctttaactct ttttttttcc tttcttaggc ttgaaaagga atacactaca 120
ataaaaacga aagaaatgga agagcaagtt gaaattaaag taagcagtcg gggctcgag 180

<210> 1805
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1805
gaattcgcgg ccgcgtcgac gattagagta ataattttgt catttaaaaa cacagttgtt 60
tatactgccc atcctaggat gctcaccttc caagattcaa cgtggctaaa acatcttctg 120
gtaaattgtg cgtccatatt cattttgtca gtagccagga gaaatgggga tgggggaaat 180
acgacttcac tcgag 195

<210> 1806
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (271)

<400> 1806
gaattcgcgg ccgcgtcgac ctcggaactt cttcacaatg agaaacctga aaggtcccag 60
cagccagcaa tgaatgaaag gtggggtggg gccgctggca gggcgaggcc ttgtgagcca 120
tgtgcctgtg ctctcaagtc cgaagtttgt ggggatgcat gcaggagatt ctggccctga 180
ttgtttcccc agaaccagga tgcgttctgg ttggcaggac aactggcctt cacttggtgg 240
ccttcagtgg gtgttctcat tggttgcctt ngtttagtgc cctcagttgt atctcttctc 300
gag 303

<210> 1807
<211> 191
<212> DNA
<213> Homo sapiens

<400> 1807
gaattcgcgg ccgcgtcgac caatttctga agaagaccaa aaagaaccac aagacgatga 60
atgaaaaggc atggaagcgt tggtgcacac aaatcctctc tgccctaagc tacctgcact 120
cctgtgaccc ccccatcatc catgggaacc tgacctgtga caccatcttc atccagaaca 180
acggactcga g 191

<210> 1808
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1808
gaattcgcgg ccgcgtcgac ataaaaggaa gattaacaaa gttaccctgg aacaatagct 60
tacttatcca aatctcaaca tttacatttt aacagttttg tatgtttcaa agttgaaact 120
actgtaagag aaagccaata ctatttatat ctgaatcaac agtagcataa acatttttta 180
attgagattg tattttaatc ccttttgtta aagtacatta acaacagttt ttcacaggat 240
atgaacttgg cgaaattagt tcttaatctg aatatactcg ag 282

<210> 1809
<211> 269
<212> DNA
<213> Homo sapiens

<400> 1809
gaattcgcgg ccgcgtcgac atggagatac ctagtatgga tcggagagag ctgtttttcc 60
gagatattga gcgtggtgat atagtgattg gaagaattag ttctattcgg gaattcggtt 120
ttttcatggt gttgatctgt ttaggaagtg gtatcatgag agatatagcc cacttagaaa 180
tcacagctct ttgtccctta agagatgtgc cttctcacag taaccatggg gatcctttat 240
catattacca aactggtgac ttactcgag 269

<210> 1810
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1810
gaattcgcgg ccgcgtcgac cagtttttg taagactctg tggtattgtt ggaggaatct 60
tttcaacaac aggcatgtta catggaattg gaaaatttat agttgaaata atttgctgtc 120
gtttcagact tggatcctat aaacctgtca attctgttcc ttttgaggat ggccacacag 180
acaaccactt acctctttta gaaaataata cactcgag 218

<210> 1811
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1811
gaattcgcgg ccgcgtcgac tgagaattgg caaactaatg ttgtttgggt ctatcttccg 60
ctgtttggat cctgctctca ccattgctgc cagtttggct tttaagtcgc cgtttgtatc 120
tccctgggat aaaaaagaag aagctaacca gaaaaagctg gaatttgcat tcgcaaacag 180
tgattatctg gcccttctac aagcgtataa gggatggcag ctaagtacaa aagaaggcgt 240
gcttctcgag 250

<210> 1812
<211> 246
<212> DNA
<213> Homo sapiens

<400> 1812
gaattcgcgg ccgcgtcgac ggggaaaaca tcattactga tattttaaac ggatgtttta 60

ctttccatca acatgaacct caacttgata tgatgcagat tgaaggaaat cacccataat 120
tccacattaa gaaggcctgt gatattttat gggaaaataa atagagaaaa tgctaacaga 180
aaccctatta agcattaagc tttatggagc aaagacaaat ccagtggtga aagatacaca 240
ctcgag 246

<210> 1813
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1813
gaattcgcgg ccgcgtcgac cttcaccttc caccatgatt gtaagtttcc tgaggcctcc 60
ccaggtgtgc ttcctgtaca gcctgtggaa tgttaccaaa gacgttggaa gaggtggcta 120
tggacatcac ctgggagaag tggaagcaaa tggacactgt tcagaagtcc atatacagaa 180
acatgttgga ctcgag 196

<210> 1814
<211> 264
<212> DNA
<213> Homo sapiens

<400> 1814
gaattcgcgg ccgcgtcgac acagatttga gcaaatacaa ttaaggtgtc ttattttttg 60
catcaagtaa ttattgctgt ggtctttcta ctccacaaaa taatttttc tttttgcagt 120
tgaaaattaa ctgcattatt aactaattaa taaaataaat caagtggtat aagggattag 180
tttaccctca agccgatgac tccatggcta ctgatattag ttagtttagg atttttaaaa 240
agcatatcag acccccaact cgag 264

<210> 1815
<211> 301
<212> DNA
<213> Homo sapiens

<400> 1815
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gtgtggtatc ttgctctagg agcattttca agccatcaga agtgggactc ttgaagacta 180
tttctgactt tctcagcaca aattaagata ataggagatg gaggctccat ttgaaaaaca 240
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g 301

<210> 1816
<211> 214
<212> DNA
<213> Homo sapiens

<400> 1816
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ggtgcgtatt tggtagattt tatggatgga tttcgtgaag gataaatagc agagtcctga 180
ggggggaaaa aaggatagaa gggccaaact cgag 214

<210> 1817
<211> 226
<212> DNA
<213> Homo sapiens

<400> 1817
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tttcttactt ctatggctgt ttccgcacct tgaggttttt cttccttcct atattcattc 120

tcccacaagt ttaatttatg ctatgtgtgg cttaaatgat tacctaaatg ttgtcaattc 180
gtccccccatc acccccgcaa atcatcctct ctacttacaa ctcgag 226

<210> 1818
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1818
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cctattctga gtatcctccc ctttccaccc caacatagta tctttcaaag aatcccttgc 120
ataggagact gtaaccgaaa gtgttagctt ttcaccaggc tatttacact ttacgcctta 180
gttctaattg tggaaggaaa aacttttccc ttgtcaaagt aatgttatgg cttcagagaa 240
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<210> 1819
<211> 165
<212> DNA
<213> Homo sapiens

<400> 1819
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aggaaaaaaa gtaataaaaa tctgatagtc taagactcca ctatttaaaa gcctaattac 120
tttaaaaata tgcatacttt cagaactttt accaaaacac tcgag 165

<210> 1820
<211> 233
<212> DNA
<213> Homo sapiens

<400> 1820
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acagttctgt tgttctggct actgttgcct ggaagaaatc acacatgaac aaactcacct 120
tctgcattat actgacatca ttatatttgc caattgattg tgagctaatt ggggttatag 180
aaacgtgcta tagcataaca gactgtaatt atttctctct aggcgttctc gag 233

<210> 1821
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1821
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agaaaatcat tagcatttcc catcatttgt tcatatttgt gttttctgac agttgccact 180
tgtagcattg cctgtactac agtatttttt gccaacctca ggcatactcg ttacatctgt 240
attgaacttt cggccctaaa actcgag 267

<210> 1822
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1822
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctggtttg 60
ccggacttgt ctttctgcac ctgatggttc agctctgcaa ggatcgattt gaatatcttt 120
ccttctcgcc caccacgccg atgagcagcc acggtcgagt cctgtccctg ttggttgcca 180
tgctgctttc ctgctgtgga ctggcggccg tctgctccat caccggctac acccacgaaa 240
tgctcgag 248

<210> 1823
<211> 282
<212> DNA
<213> Homo sapiens

<400> 1823
gaattcgcgg ccgcgtcgac acttgcccac ccagcctcct gctctagaca ctccctgtcc 60
aggccatctt gcactgcctg gttaatcatt cagaaatatt gtaccaattc tactctttcc 120
ctccttcagt gacttactat tgtctgcaga atgaagtata agttccttat tcaaggactc 180
atatgcagga actttccaga attgtcctct tcctatttcc ctagtgccat tgacatcgtt 240
actttgcatc agtgcctacc accctttccg atacatctcg ag 282

<210> 1824
<211> 277
<212> DNA
<213> Homo sapiens

<400> 1824
gaattcgcgg ccgcgtcgac tttttgtaac actttttttgt atttttgcca tttgaaaagg 60
ttgtggtgta gttggtctgt aattaagttg cagatttaaa actgctgtta gctttgtaaa 120
tcaaaatata ggtgtttttt gtcctggtat atcgtcattc catctgcagc tggagctgga 180
atcccattga tcttctagct accattcatt ttcttcactg ttcacaaaag aagagtgtga 240
aattcagtga atgctgttac taatcctgtt actcgag 277

<210> 1825
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1825
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tttttgtttt tttttgtggt cttcaagaga gcagttcaga gaccagggtg catggtggtt 180
tactgagtgg gttggaagaa tatggaagca cgctcgag 218

<210> 1826
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1826
gaattcgcgg ccgcgtcgac tgcatatgtt aggagtggaa acaatctgga aaacattttt 60
ttttcatcca aaaagtattc tccttgggca tatctgatgg aaaaaaacct tgattttatt 120
ttcgtatctt tagtctgtgt tctttctagt tatttggtac taattatgtg caatctaaaa 180
acacccccac tcgag 195

<210> 1827
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1827
gaattcgcgg ccgcgtcgac ggttctttcc attcctattc cctccttaac catttctcta 60
cccagaatca gtctgttaac agtttaatgg cattgcttca ttttaaaaaa tgattgcatt 120
gtatttcatt ttatggatgt gccaaaattt acataattgt tattctgttg atgaaagttt 180
aggatgtcac ctcgag 196

<210> 1828
<211> 205
<212> DNA

<213> Homo sapiens

<400> 1828
gaattcgcgg ccgcgtcgac gatactccct cattcatgaa aaaatgcgtt tatttttagt 60
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gaagctctgt ttccagaatg ctggattggc tgtggtgggg tccataaccc actgcctgta 180
tcaaactcat actccaagac tcgag 205

<210> 1829
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1829
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cctgccacct ccgatggatc cactgcctct gtgcctgcct gtactgctga tgctccagtg 120
gataactcag catcccagcc taggcccaat gccactgaag atggacctgc accctgggga 180
cccaggagtc ctaccactca gctgtcccca ggagtgccca gaccctcatt cttatccagg 240
acttctcgag 250

<210> 1830
<211> 262
<212> DNA
<213> Homo sapiens

<400> 1830
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actcttcaac ctcctctggc ttgccctggc ctgcagccct gttcacacta ccctgtcaaa 120
gtcagatgcc aaaaaagccg cctcaaagac gctgctggag aagagtcagt tttcagataa 180
gccggtgcaa gaccggggtt tggtggtgac ggacctcaaa gctgagagtg tggttcttga 240
gcatcgcagc tactggctcg ag 262

<210> 1831
<211> 215
<212> DNA
<213> Homo sapiens

<400> 1831
gaattcgcgg ccgcgtcgac cccaaggtaa tgctttcttc catttcatca ggttctttta 60
tccccactgc accccctccc cttctccctt gcctatctgg atggcttctc agaagctcgg 120
ccctagtcct ccctgccttg gcggggccag agcccactac tgctgaggca gcactgctct 180
cgtcagctgt gttgccttta ccaagtgccc tcgag 215

<210> 1832
<211> 173
<212> DNA
<213> Homo sapiens

<400> 1832
gaattcgcgg ccgcgtcgac cagaaaacct ggacagttcg cttctacaca agaattttat 60
atgtatttat gaagatgatt ctgtacccta gtatatcttt ttgggcatgg actaatttgt 120
atctgtttaa ctcatattct gcacgatctg tatatagtac atcagaactc gag 173

<210> 1833
<211> 204
<212> DNA
<213> Homo sapiens

<400> 1833
gaattcgcgg ccgcgtcgac agaacggccc ctgcccaaca tcttcaacct gtacaccatc 60

ctcaccgtca tgctccagtt ctttgtgcac ttcctgagcc ttgtctacct gtaccgtgag 120
gcccaggccc ggagccccga gaagcaggag cagttcgtgg acttgtacaa ggagtttgag 180
ccaagcctgg tcaacagcac cgtc 204

<210> 1834
<211> 187
<212> DNA
<213> Homo sapiens

<400> 1834
gaattcgcgg ccgcgtcgac cctagataca aggaaaatag tagaagcttg taaagccaaa 60
actgatgctg gcggtgaaga tgctattttg caaaccagaa cttatgacct ttacatcact 120
tatgataaat attaccagac tccacgatta tggttgtttg gctatgatga gcaacgacag 180
tctcgag 187

<210> 1835
<211> 137
<212> DNA
<213> Homo sapiens

<400> 1835
gaattcgcgg ccgcgtcgac ctatcctgcc tgcctttatc tgccttgccc tgcgattatt 60
tggctttgta agcataagct acgtaagaca taccacacct aagaaactaa acagcaatga 120
aaacccatat gctcgag 137

<210> 1836
<211> 235
<212> DNA
<213> Homo sapiens

<400> 1836
gaattcgcgg ccgcgtcgac gttggtgtta atttctgatt aacccttgaa tttaccgtct 60
tctcatcctc tgtacaaaag cctcaagtga gggtcaaatt caacattatc ctgatctaga 120
cagccccccat tctcaatcca ccctttttcca agttgattgc ccaaggactt ctaacaataa 180
actctctttt gcaccacaga cttctttgaa aatatacatg ctgttgaccc gcacg 235

<210> 1837
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1837
gaattcgcgg ccgcgtcgac tgttgataaa atgaaactag tggaatcttt gtgtcaagta 60
ttacagtctg ctgggttttt cagcattgac caggaagaag atgttgactt cctggccaga 120
ttttctaagt tggtaaatgg aacgggactc gag 153

<210> 1838
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1838
gaattcgcgg ccgcgtcgac ccatgaagag aagtttacag gccctctatt gccaactgtt 60
aagtttcctg ctgatcttgg cactgaccga agcgctggca tttgccatcc aggaaccatc 120
tcccagggaa tctcttcagg tcctcccttc aggcactccc ccgggaacca tggtgacagc 180
accccacagg ctcgag 196

<210> 1839
<211> 292
<212> DNA

<213> Homo sapiens

<400> 1839
gaattcggcc aaagaggcct actttctcca gaagtcaaga aagcggtcag cgacggtgtg 60
attctcaaac atgatattgt ccacatgcct gtacttctgt ctgttcagcg tgatggcgct 120
cggctggcac ttagtacaga tgccattcgg ccacgggagg tgcccctcgc accctgactt 180
aatcttgcag ctgatgttct ccagggcaac aaacttcccc ctacttgtca gcccctccag 240
tcagcttccg gatgtaggcg tggaaggaca tgtgcttcac gggaggctcg ag 292

<210> 1840
<211> 312
<212> DNA
<213> Homo sapiens

<400> 1840
gaattcggcc aaagaggcct attgaactac tggctgacca tgtttcgaat caggtacatc 60
caccggccct gcctgcaggt gatcgaggcc atgctggtgg ccgccgtcac ggccacagtt 120
gccttcgtgc tgatctactc gtcgcgggat tgccagcccc tgcagggggg ctccatgtcc 180
tacccgctgc agctcttttg tgcagatggc gagtacaact ccatggctgc ggccttcttc 240
aacaccccgg agaagagcgt ggtgagcctc ttccacgacc cgccaggctc ctacaacccc 300
ccaaccctcg ag 312

<210> 1841
<211> 249
<212> DNA
<213> Homo sapiens

<400> 1841
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ggtgaagggt ctgctgtgca ccatccccca tcctacgtgg cccacctggc ctcagacttc 120
ggggtgaggg tgtttcagca ggtggcgcag gcctccaagg accgcaacgt ggttttctca 180
ccctatgggg tggcctcggt gttggccatg ctccagctga caacaggagg agaaacccag 240
caactcgag 249

<210> 1842
<211> 779
<212> DNA
<213> Homo sapiens

<400> 1842
gaattcgcgg ccgcgtcgac gtcttggacc agtattcaat gtggggaaat aaatttggag 60
tattgctttt tctgtattct gtattactga caaagggcat tgaaaacata aaaaacgaaa 120
ttgaagatgc aagtgaaccc ttgatagatc ctgtatatgg acatggcagc caaagtttaa 180
ttaatctcct gctgacggga catgctgttt ctaatgtatg ggatggtgat agagagtgct 240
caggaatgaa acttcttggt atacatgaac aagcagcagt aggattttta acactaatgg 300
aagctttaag atactgtaag gttggttctt acttgaaatc tccaaaattc cctatttgga 360
ttgttggcag tgagactcac ctcaccgtat tttttgccaa ggatatggct ttagttgccc 420
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gattcatacc cgattcactt ctggaagatg tgatgaaagc attggacctt gtttcagatc 540
ctgaatatat aaatctcatg aagaataaat tagatccaga aggattagga atcatattat 600
tgggcccatt tcttcaagaa ttttttcctg atcagggctc cagtggtcca gaatctttta 660
ctgtctacca ctacaatgga ttgaagcagt caaattataa tgaaaaggtc atgtacgtag 720
aagggactgc agttgtgatg ggttttgaag atcccatgct acagacagag acactcgag 779

<210> 1843
<211> 407
<212> DNA
<213> Homo sapiens

<400> 1843

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ggcacacctt gtcccttccc gcagcatttc ctggttcccc ccagaccctt gagcgctctt 120
tgggacccag aaggagtcct tgcacaggga aggcttgagg tgagaagccg cttcccagac 180
tgtcagggcc aggcctgggt ctagaattct tgctgctgct ttgcagagtc aacagcccat 240
cagcccatgt tttagagggg acactttggt cctcggttcc caccctcagc aagcaggcct 300
ccagcccgag gaaggcctct gccgtagtga cgttgccgtg tggggctgcg tggctgttcc 360
ccttggctgg agcattcagc caaccccagc gtcccccccta cctcgag 407

<210> 1844
<211> 369
<212> DNA
<213> Homo sapiens

<400> 1844
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gggggcagcg ttttccccct accggaaatc tgatgggctt atgacatcat ggctggctgc 120
tgagcgatga agtggatgcc acaaagaaat ccgacatatc agatagattc tgaaatcggt 180
ttccctccag ctgtagtaac aggcgtgaag tcaggagaat ttgagctttg tttaaaaaat 240
aaataaataa ataaataaac cataacaaag tcttgccctg tattaaatgc aattttctta 300
aaaacaagca aacctttttgg acatcatttt attttaatag aaatgctgag ttttatgaaa 360
ctactcgag 369

<210> 1845
<211> 213
<212> DNA
<213> Homo sapiens

<400> 1845
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acagctttgc atttgagtga caattccctg tcccgaattc cttcagacat tgccaagctt 120
cacaatctgg tgtatttgga cctgtcatct aataaaattc gtagcttacc cgcagaactc 180
ggaaacatgg tatcactcag ggcgctcctc gag 213

<210> 1846
<211> 341
<212> DNA
<213> Homo sapiens

<400> 1846
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tttctacagg gtatttgcga ggtcttcctc ttttcctttt aataattatt ggctgatctt 120
cctcctgaga ttttatggtg tcatcatcgt tctgctctgg cttttcacca gtagtttcac 180
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tggttttagg taattcttcc aaatctctgg agttctcttc ctttgtgtca tgtggctccg 300
gattgaattc tagacctgcc tccagtaaca aggacctcga g 341

<210> 1847
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1847
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ttatttgata tagcataagt atgtttttaa gaattcatgt tatcctcgag 110

<210> 1848
<211> 351
<212> DNA
<213> Homo sapiens

<400> 1848
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agtggggccc gcctaatttt ttttcccccc aagacagggc cttgctctgt ctcccaggct 120
ggagtgcagt ggcatgatca tggcttactg cagccttgat ctcccaggct caagcgatcc 180
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atatcagcag taataatcac ttgtgttctg aaagaaaggg caccagaagt tctagcaaaa 300
ttcagttgtg ttctgtgagc tagcactttt tcctctgacc cctgcctcga g 351

<210> 1849
<211> 414
<212> DNA
<213> Homo sapiens

<400> 1849
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tccccacttc ttggaccccg tcttcctctc caccaagagc cattcgcagc ggcagcccct 120
gctggccacc ttgagttctg tgcctggtgc gccggagccc tgccctcagg attgcagccc 180
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tgcagagggc tccggggggc cagtgcccac taccagcacc ttgattcttc ctccagagta 300
cagttcttgg ggctacccct atggtgagtc gacagccagg gcttggcagg gaggggacgc 360
caagagcccc acgcagaccc tgctttcttc ccgcagaggc cccaccgtct cgag 414

<210> 1850
<211> 359
<212> DNA
<213> Homo sapiens

<400> 1850
gaattcgcgg ccgcgtcgac gttgggatgt ctatattgct gctgcagtcc ctaccgctgg 60
aaacggggag aaccctcggt gggaggctgt tgctggtctg tagcgctttc atctaagctg 120
cccagggtgg tggccccctc tagtcttttg ctcggcagcc gcttccatcg ggtcaccgga 180
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tatggggtaa gtaagcttgt cacggagggc tacaggcgtc tcctgggaag gacctcgag 359

<210> 1851
<211> 292
<212> DNA
<213> Homo sapiens

<400> 1851
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cttatggctt tcttctaatg ttgaaggctg ttctaattgc attttcttta agtcctgtag 120
taattcttca gaaagatctt catcaccatg aattttgaaa gtaagatcac tggcactaat 180
agagcgacgt aattttgtac acttggaaaa agatgtgtga aaacatttag caaattttgg 240
atcttgaaca tcaggcataa tttctgttgg agatgtaaat ggggctctcg ag 292

<210> 1852
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1852
gaattcggcc aaagaggcct aggaaaaacc tttgataatc ttgttggcaa aaatgcgtat 60
tttttgatt actagtgagt ttatttattt attttttat ttttcgagat cgtgccactg 120
cactccagcc tgggcaacag agcaagaccc tgccaagaga aaaaaaagac tgtgtctttt 180
cacattccac caatatactg atagcatctg tctctctgca aatctcgag 229

<210> 1853
<211> 288

<212> DNA
<213> Homo sapiens

<400> 1853
gaattcggcc aaagaggcct acgaggggtg agaggaatgg aaagcagtgt ccccttttgag 60
aaggcaaatt tacagctggc ttttgtaatc ctagctattt tttgtttgtt tgctaagtct 120
ttgatagtcc ccagtgtggt ttgtctgcca gtgatctcag caccaccaga gagcttgtta 180
gaaatgcggc atcccaaccc caccacagcc ctcccaagtc agatactgcc acctcacgag 240
gcccccccagg gatccacaag ttcattaaag tttcaggaat ccctcgag 288

<210> 1854
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1854
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cttgtatttt gatgagaagg aggaattcaa attttaaact tctgttaaac gatattttat 120
ttccttattt gatttttatt ttgagaccga gtcttgctgt tgcccatgct ggagtgctcg 180
ag 182

<210> 1855
<211> 198
<212> DNA
<213> Homo sapiens

<400> 1855
gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagctt cctgggtctc 60
cacatgctgt tcatcactct cctcctcttt acctggatgc ctcgtgcctg tgcctcccga 120
cctccactga gacaatgtca cctccaggaa gtgcccctca caatcctctc ctcccacaat 180
accctgtccc gactcgag 198

<210> 1856
<211> 239
<212> DNA
<213> Homo sapiens

<400> 1856
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ttttttaaag gactctatct ttctttttcct ttaaatcctt ttctctcttc tttttgtctg 120
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tattttccat tcttttctta atttttatgt ttcttctttc acatcctatc ccgctcgag 239

<210> 1857
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1857
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aaataattgc cggaatgata tcctctaaaa gatgtgagcc tctcagagag agagagagag 120
ggttcctctt gcaacaggca tcgtgtgtgt gttttatgtc ccttctcttc tgctgctgtg 180
cacttaattc ggttccagcc gtgtcaggga gactcgag 218

<210> 1858
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1858

gaattcggcc aaagaggcct acttcctttt ccccctaagt taataggaca gagatatcat 60
atccttttct ctattctttg ataattcctc cctgtttttt tccctttctt tttctagaac 120
tcctatcagt cacaagttaa aggtcctaaa ttgacctaat gactctttct ttttactcat 180
attttctgtc tcttttattt tgttctagtt tcggcttttt aaaattttat cttccaactc 240
cgctcgag 248

<210> 1859
<211> 242
<212> DNA
<213> Homo sapiens

<400> 1859
gaatttggcc aaagaggcct aactttttca acctctattt cttacttctt gcctgctctc 60
agtttgttcc cgaaatgaga cttggtgcac tctataccta ctgggttccc ctgggcttcg 120
tgctggccgt cactgtcatc cgtgaggcgg tggaggagat ccgatgctac gtgcgggaca 180
aggaagtcaa ctcccaggtc tacagccggc tcacagcacg aggcacagtg aaggatctcg 240
ag 242

<210> 1860
<211> 210
<212> DNA
<213> Homo sapiens

<400> 1860
gaattcggcc aaagaggcct aggccaagaa aaaagaaatt ggcattctct agcaaagaga 60
ttagactttt aaataactct tataaaacag gttggcgatc atttcccaag attggtttcc 120
cttgagtttt tgctaaaaca aatcttagta gttttgcccg tttaaaacaa ctcacaatcg 180
taaatgctac tattcctaag atatctcgag 210

<210> 1861
<211> 253
<212> DNA
<213> Homo sapiens

<400> 1861
gaattcggcc aaagaggcct agaaggacat cacaatgctg ttagacaccc agtgcatctt 60
tgccctgatc agaatttgga actacaataa atctcggata cattccttcc gaggcgtgaa 120
ggacatcaca atgctgttag acacccagtg catctttgaa ggagaaatcg ccaaggcctc 180
tggaaccctg gcgggagccc cagagcactt tggagacacg atcttattca caaccgatga 240
tgacattctc gag 253

<210> 1862
<211> 485
<212> DNA
<213> Homo sapiens

<400> 1862
gaattcggcc aaagaggcct accaagttcc aattttagcc ttacaaatta ctaatttact 60
gcttctctct ctctaagcct cagctccctg atctagacca tgagatttac agtaggagag 120
taccatgttt atccccaaat acttaacagc tagggttttc ccagactgaa taataataat 180
aactttttta aaattcagaa ggtatcttca agttcttggc ttgcttcttg tacattcaat 240
atcaaagaag agaaaacaca ctatctgaga gtacttccca tgcacctaat aagtgccaaa 300
gccacctggt gctagagccc ttcaccaaaa tgagcatcag ccttgctttc agaaagcagg 360
gaccacatat atatgattta aaaaaaatct gcgatcaact tttctctaaa aaacccaaat 420
atgctggggt acagaaagat caatgcaaaa gcaaaacatc ctgtgcctgt cctaaccccc 480
tcgag 485

<210> 1863
<211> 343
<212> DNA

<213> Homo sapiens

<400> 1863
gaattcggcc aaagaggcct aagatattgt catgttcatt cagaattata cccagtcatt 60
ctccctgctt ttagcaacca atattttaat aatgtataat attttgtcca ctgaatgtgc 120
cactttacat aacaatactc ctgatgctgg actttcacat tgttatcaac ttttcactgt 180
caataatgtt gcaatacata tctttttgag agatagggtt ttaaattttc tttattttga 240
aataagttct aggttagagc ccaggatgg gattagttgg tggaaaatta agaatcctaa 300
tgcactgaag actcctattg aaaccaagag caagatactc gag 343

<210> 1864
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1864
gaattcggcc aaagaggcct aggtagtgag aagtcgagag tcagtaattt tcttacttaa 60
tattgtgggg atcttactta atacataaag ttaatgaaac tagaaatagt ggtttaatat 120
attacttata attcaaaaat taacctatat ttacagatgc ttacacagtt tctttgtgaa 180
tccacctatg gttttatttt aattaatttt ttattgcaaa gcaatgaaat gttgctttgt 240
ggagccagaa agctcgag 258

<210> 1865
<211> 290
<212> DNA
<213> Homo sapiens

<400> 1865
gaattcggcc aaagaggcct atgaattcta gacctgcctc ttataagcca cattcctgct 60
gttctcctgc actcttctga ttctgtatct ttacatctag attattttta cctcctaggt 120
tcttttccctc ttcattacta ccttataaaa atacatccat tcttcaaata ttttcccaat 180
ctcccagtaa gaattagcct ctctcaatgc tggtgcagtg gctcattcct gtaatcccag 240
cactttggga agccgaggca ggcagattgc ttgaacccgt gagtctcgag 290

<210> 1866
<211> 305
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<400> 1866
gaattcggcc aaagangcct acgaggaatg tggatatctg actagattaa aaggttaaag 60
aactgtttta agttggataa gataaagaca aaggtttaag caagttgtgg aagggtgatt 120
gtaaaggaaa ttctgtgtgt aaacatactg gctgtagtta aaaagggtat tgtccagttt 180
ttctgtaaat tgagcattaa aataaaagca caatgggttt ctcttacagc actatcctgc 240
ttttttttg cttttttttt tctttggaga cagagtctcg ctctgttgcc caggctggtc 300
tcgag 305

<210> 1867
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1867
gaattcggcc aaagaggcct actcatcagc tttgatgatg agatcgatgt ccaccaaggg 60
cttgctctgc agaactggaa ctggggggtt ggctgggggc ccttctccca gtgacttgta 120
tgctttggct tgtgatgccc ctgcgagtag gggagggtat ggggtgagtc cttccttgga 180

ggtcaccttg agtctgttct ca 202

<210> 1868
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1868
gaattcggcc aaagaggcct agtaatttcc ccttgaaaat tcctagtcac tccctctgtt 60
cctccaaatc taattgctga taaatccctt tcaggtctct cttctataaa gtcttccaaa 120
acccagatag ccaaccacaa cccaccatcc ccctgaaatc ttgttgctct catccatgcc 180
acacatctgg aatttgctat atctactggt atttgacatg tataaaatct atttctgccg 240
ggcgctcgag 250

<210> 1869
<211> 133
<212> DNA
<213> Homo sapiens

<400> 1869
gaattcggcc aaagaggcct acctaaaccg tcgattgaat tctttgtggc tacagatcaa 60
aaattcatac tgaaaaagat atttgtcatt taacatggaa cctttccaat acattttaag 120
aggcatactc gag 133

<210> 1870
<211> 244
<212> DNA
<213> Homo sapiens

<400> 1870
gaattcggcc aaagaggcct agagaacaca gccagcaggt gcctataagc aagaaagtgg 60
gttctcacca gccatcgaat ctgctggtgc attgattgca gacttcccag actccagagc 120
tatgagacat aaatttctgt tgtgtataag ccatacagtc tatggtattt tgttacagca 180
gcctgaaggg actaagacac cttcctgttt tacagacaag atgcccaaag caccacaact 240
cgag 244

<210> 1871
<211> 262
<212> DNA
<213> Homo sapiens

<400> 1871
gaattcggcc aaagaggcct attcaaattt ataggctaac tgcgtatatc ctcattagtt 60
catatcagtc tagttaatag caacgttagc caaattttaa aataaaaata actacattta 120
gaaagtgatt tattttcttt tcttttttct tttcttttct tttctttttt cttttcgtga 180
gatggggtct cgctctgtca cccaggctgc agtgcagtgg cacggtctca gctcactgca 240
acctctgact cctgagctcg ag 262

<210> 1872
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (48)

<220>
<221> unsure
<222> (65)

<400> 1872
gaattcggcc aaagaggccc acctaaacct tctccactaa acgtcgtnag ggcctcagtt 60
ctagnacgag tcatacctga ttcacctgca ctgcttcccc cgtgtgctga gcatagagca 120
tacaatagcg cctacttcac ggaaacttgt gcctttaaac tttgtaaact taaacacagc 180
cgagaagttg cttctttgta ctttttctac ttttcctact tttttgtaga aaaaaaagat 240
aatgcctctg cttctatttc tctgggggtg ggggtggggg ccgggagccg tcgcagaccc 300
gtttcatgca gcgtctccct cggcaccgcg ttcggaggac gcaccctcac tcccctgctg 360
ccttcactcc tttctgacca agcaacgcta acttttgtac agatcgattt gactcgag 418

<210> 1873
<211> 174
<212> DNA
<213> Homo sapiens

<400> 1873
gaattcggcc aaagaggcct aaatttagcc ataagactaa ataataagat gccactattg 60
tatttgaacc attctgggtt cttttcttct tcttttaaat cgcaaagttc agctatgtca 120
gtattcctgc tcctcgctct gttggcagta ttaaaatcaa ctttacccct cgag 174

<210> 1874
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1874
gaattcggcc aaagaggcct aaggagccag cttatcagtg tggagaagat tgcagctgca 60
atttgctggt tagtctctgt tcttttaacg ctttcctgaa gtgccatttt gtctcggtaa 120
aatgctccct gaaaatactc aaatattttt agttgtagag tacaaatcag attgagctgc 180
acatttccct ggtgagcaaa agtgatgagt ttgtgttcat taactcgag 229

<210> 1875
<211> 191
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (90)

<400> 1875
gaattcggcc aaagaggcct agtcatttcc tgaggatggt ccagtggtct agtgcgtgtg 60
tgtgtgtgtg tgtgtgtgtg catgtgtgtn tgtgtgtttt aataaattgg aagcaagaac 120
atttgatgtt catgaagtta cacttattta ttacggaaaa caaaaagaca gctttacatc 180
ataacctcga g 191

<210> 1876
<211> 277
<212> DNA
<213> Homo sapiens

<400> 1876
gaattcggcc aaagaggcct actgagcctc agttttctct tctgcatagt gagactaaaa 60
tagtactgcc ccatgtggtt gttgggaaga cgccataaga taatagatgc aacatcttag 120
tgctccagct gagcgcttag tttatgccag ctggcactgt tggtgttaac tgcgtatttg 180
ttgtatgact gtcacttcga cagcctgtac cctccttgag ggcagagact ttgtctcagt 240
cacataaaca tttgatggaa agaaggtaaa tctcgag 277

<210> 1877
<211> 203
<212> DNA

<213> Homo sapiens

<400> 1877
gaattcggcc aaagaggcct atttcaagat tgttaaattg agacaagtaa ttgaataatt 60
tgtcctattt ttattttaaa aaaagtgaat ggactgaaat gttaaatgtg aatgtacatt 120
tcttaattgc aacttttcta ctgagtgttt gcactatact ttctggaatc ttatttaaca 180
aaaataataa agggaagctc gag 203

<210> 1878
<211> 254
<212> DNA
<213> Homo sapiens

<400> 1878
gaattcggcc aaagaggcct acccacgggt cccaaggtgc ccttctgtgg accaggcgag 60
caggttccag gccctgattc cctgaccctg ggggacgaca gcatccgtag cctggacttt 120
gtgtccgagc cgagcctgga cctccctgac tatgggccag ggggcctgca tgcagcctac 180
ccgccatccc caccgctcag cgcctctgat gccttctcgg gcgctttgcg ctccctgagc 240
ctcaaggcct cgag 254

<210> 1879
<211> 229
<212> DNA
<213> Homo sapiens

<400> 1879
gaattcggcc aaagaggcct aggaagataa gtgtgtgtat agatttttta aagattggtt 60
tataaattga taattgttaa agtaggttga taggtatatg ggagtttatt atactatccc 120
acttttacgt gtgtttgaaa aaattttttt taaatcgttg tttttttccc ccttttgcct 180
tctaggattc ttacagaagc agagattgat gctcaccttg ttgctcgag 229

<210> 1880
<211> 247
<212> DNA
<213> Homo sapiens

<400> 1880
gaattcggcc aaagaggcct aaatgaatgt caaaggaaaa gtaattctgt caatgctggt 60
tgtctcaact gtgatcattg tgttttggga atttatcaac agcacagaag gctctttctt 120
gtggatatat cactcaaaaa acccagaagt tgatgacagc agtgctcaga agggctggtg 180
gtttctgagc tggtttaaca atgggatcca caattatcaa caaggggaag aagacataga 240
gctcgag 247

<210> 1881
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1881
gaattcggcc aaagaggcct acttcctttt ccccctaagt taataggaca gagatatcat 60
atccttttct ctattctttg ataattcctc cctgtttttt tccctttctt tttctagaac 120
tcctatcagt cacaagttaa aggtcctaaa ttgacctaat gactctttct ttttactcat 180
atttctgtc tcttttattt tgttctagtt tcggcttttt aaaattttat cttccaactc 240
cgctcgag 248

<210> 1882
<211> 179
<212> DNA
<213> Homo sapiens

<400> 1882
gaattcggcc aaagaggcct acaggtgtac accaccacat ccagtttata agctttttct 60
tattaaaaaa agtttttttt tttaagtttt ctgttaaaaa ctaagacaca aacacataca 120
ttagcctagc cccacacagg gtcatgatgg tcagtatcac tgtcttctac ctcctcgag 179

<210> 1883
<211> 206
<212> DNA
<213> Homo sapiens

<400> 1883
gaattcggcc aaagtgccta cacgtatatt ttcaaggact cactcttaga aacaaaaatg 60
tcatactttc atacttcatt ttgtggttgt cttacatttt tttttttttt tttttttttct 120
ctaatttaac ctttatggaa gctttaaagt tttgtcaaaa catgagtgct ttgcccatca 180
gtgaatggaa tggaccgatg ctcgag 206

<210> 1884
<211> 193
<212> DNA
<213> Homo sapiens

<400> 1884
gaattcggcc aaagaggcct actatacacg aggcaccagg ccaactccag tgacaacaat 60
ttgcaaatct caagcactga tctccagtgt gtgcttgatc tggtgtgtgt gtgtgtgtgt 120
ctgtatatac attcccagga gcacacacat ggacaagtta ctacagcccc cgctcccaag 180
tccaccactc gag 193

<210> 1885
<211> 238
<212> DNA
<213> Homo sapiens

<400> 1885
gaattcgcgg ccgcgtcgac ccttgcaggc attactaaat cgcttccttc acccaaaaca 60
tatcatggcc atgagttgtg actgccaagg aatgtgcctt gctagtttga agatgcagtt 120
gattttatta ttttattatt ttattttatt ttttgagaca gagtgtcaca ctgtcgccca 180
ggctggagtg cagtggcacg atctcggctc gctgcgggct ctgcctcccg ggctcgag 238

<210> 1886
<211> 715
<212> DNA
<213> Homo sapiens

<400> 1886
gaattcgcgg ccgcgtcgac cacatgaact gagcaaatga gatagaaaca tggcattctt 60
aattatacta attacctgct ttgtgattat tcttgctact tcacagcctt gccagacccc 120
tgatgacttt gtggctgcca cttctccggg acatatcata attggaggtt tgtttgctat 180
tcatgaaaaa atgttgtcct cagaagactc tcccagacga ccacaaatcc aggagtgtgt 240
tggctttgaa atatcagttt ttcttcaaac tcttgccatg atacacagca ttgagatgat 300
caacaattca acactcttat ctggagtcaa actggggtat gaaatctatg acacttgtac 360
agaagtcaca gtggcaatgg cagccactct gaggtttctt tctaaattca actgctccag 420
agaaactgtg gagtttaagt gtgactattc cagctacatg ccaagagtta aggctgtcat 480
aggttctggg tactcagaaa taactatggc tgtctccagg atgttgaatt tacagctcat 540
gccacaggtg ggttatgaat caactgcaga aatcctgagt gacaaaattc gctttccttc 600
atttttacgg actgtgccca gtgacttcca tcaaattaaa gcaatggctc acctgattca 660
gaaatctggt tggaactgga ttggcatcat aaccacagat gatgacgtcc tcgag 715

<210> 1887
<211> 401
<212> DNA

<213> Homo sapiens

<400> 1887
gaattcgcgg ccgcgtcgac attgaattct agaccatggc cctgtgcttt gtcatcttct 60
ccttctgcag cctcctgctg tttatctgtg ttggaagaaa tgtgctcact ctgttactct 120
tcattgcaag agcgtttatt tctggaggct ttcaagcggc atatgtttac acacctgagg 180
tctaccccac ggcaacgcgg gccctcggcc tgggcacctg cagcggcatg gcaagagtgg 240
gtgctctcat cactccgttc atcgcccagg tgatgctgga atcctctgtg tacctgactc 300
tggcagttta cagtggctgc tgcctcctgg ctgccctggc ctcctgcttt ttgcccattg 360
agaccaaagg ccgaggactg caggagtcca agccactcga g 401

<210> 1888
<211> 248
<212> DNA
<213> Homo sapiens

<400> 1888
gaattcgcgg ccgcgtcgac ctctatctca aaaaagtaaa aataaataaa taaatttcct 60
gttttaattt ctaatgtgat aaatataata ggtatgtgcc actgcactcc agcctgggtg 120
acagagggag attccatctc aaaaaaagta aaaataaata aatttcctgt tgtaatttct 180
aatgtgataa atataatagg tataatgcat gttaactaaa gcattttaga gtctcagtag 240
gtctcgag 248

<210> 1889
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1889
gaattcgcgg ccgcgtcgac ggatatttgt ttttttgggc gcgacacaaa tcgaggtgag 60
ggaagagaga ggaaaatccc ctgaatccct gcaggattaa tttattcaaa aaggaaataa 120
aaaatactca atatgcaaaa gtcttgtgaa gaaaatgagg gaaaaccaca gaacatgcca 180
aaggccgagg aagatcgccc tttggaggac gacgcactcg ag 222

<210> 1890
<211> 361
<212> DNA
<213> Homo sapiens

<400> 1890
gaattcgcgg ccgcgtcgac ggattataat cttctggacc acctttgtat atatagtcct 60
ttcaggtcat atggctcagg actgtagttt gaacccatgt ttctcatttt ttttgtttgt 120
ttgtttttttg agacagagtc tcgctgtgtc gcccatgctg gagcgcagtg gcgcggtgtc 180
ggctcgctgc aacctctgcc tcccgggttc aagcgattct cctgcctcag cctcccgagt 240
ggctgggatt gcgggcgcgc accaccacgc ccggataatg ttttgtattt tggtagagac 300
ggggtttcac catgccgtcc aggctggtct cgaactccca acctcaggtg atccactcga 360
g 361

<210> 1891
<211> 230
<212> DNA
<213> Homo sapiens

<400> 1891
gaattcgcgg ccgcgtcgac gccaaggact taaatccagg actaccagct ctaaggctgg 60
ctctgccttg gagtatttgt gtatttagaa catttacatt taatgtaatg attgagatgt 120
tagggcttaa gtccaccatt ttatttatta ttttctcttc cctctccctt ctgtcctcac 180
cctgttatcc tcagagggag aaaacacaga agagaggcac aaagctcgag 230

<210> 1892

<211> 224
<212> DNA
<213> Homo sapiens

<400> 1892
gaattcgcgg ccgcgtcgac attcctaaaa ttctaagggt ttatgatctc tgcatagatc 60
agtatctttt gatctgaatg aatcaatatg aagatctttc tttctttctt tctttttttt 120
tttttttttt tttttttttg agacggggtt ttgctcttgt cacccaggtt ggaatgcagt 180
ggtgctatca cagctcactg cagtctcaaa ttcctggact cgag 224

<210> 1893
<211> 709
<212> DNA
<213> Homo sapiens

<400> 1893
gaattcggcc aaagaggcct aatctaattg cgatgtagtt aattggcttg gtgtgtttat 60
ggctctttat cctaaagtat atatttaagt acctaaaagg atcagttaat tattttttct 120
ttgagttgtt tctggaaaat tgtgtagaat aaaaatatct caaaatatat gtgtccttta 180
atattaaagc acttttgtaa agtatataac atttccttgg tttgctactt atcacttttt 240
aagggggatc tgttgctttc cattactaga tttttaagaa ttatactcta ttaattggct 300
tttaaaaaac tctaacattt tatttgcaga ttaataagag gagtatagaa aaatttgtta 360
aacatatttt caagtgtttt cctctcccct atcactatgc acaagagtgt tcacatatat 420
aggcactata tatactattt gttggatggc tgttggaatg ggtgggtaag tggatgagta 480
aataatatat tcagatttgt tgtatattat atacatgtaa tatacataaa aacaaatatg 540
tatatatttt gtgtgttttg aatactttgg ttaagtggct tccaaagtat gtgctataaa 600
aaccttctgc acaaaaaggt ctccatagcc aaatagattt ggaaatgtga tatattattt 660
ttatgtcaag aaattcttaa tatagattaa cacgttaaat attctcgag 709

<210> 1894
<211> 578
<212> DNA
<213> Homo sapiens

<400> 1894
gaattcggcc aaagaggcct attgaggaac tgtcctacag tggaagagac tatgtacgaa 60
ctgggtgcag tgcagtgatc tttttgtca taatgttatt ggggcaactg atgaaaactt 120
gaatgggggg gtctctggat tctttgtatt atatatagga gttctttgta ttattgttgg 180
aactttatta caagtttgca atgatttcaa catagaaaag gataccatta agagaatgga 240
aagcaacagc aaaatcctga tggaaagggg ccagtagcga gggaaagact aaaaagagtt 300
agaaagcagg gaggtagttg agagggcaag gtctctggga ggtaggagat aagaagagga 360
tggattcact ttgggatggg gggctctgtt ttcgttgtaa tagtggtgaa agataacaca 420
tgggaggaaa ggatgcagct tgaggatgga ggtaattttg aaggtctcta ggaccattta 480
aagtatattt tctttctata agactggcaa acacttttgt cagtggagtt ttagggtgaa 540
aaagtaagcc tgagaaagaa agctagggag tgctcgag 578

<210> 1895
<211> 258
<212> DNA
<213> Homo sapiens

<400> 1895
gaattcggcc aaagaggcct atgattttcc aatattaccc atattttttt gctagtattt 60
tttagtaaag aagagcttca tctctctccc accttgttag taacactgtg gactcctgga 120
ttttctttca gttcagtgat taccattcag tgtgttgtca tggacatcac tgtgcctatt 180
gatgcactaa ttgtcccaaa tctgacgatg ggagcccttt caagcttgct tttctgttct 240
tttgcgcact cactcgag 258

<210> 1896
<211> 423

<212> DNA
<213> Homo sapiens

<400> 1896
gaattcggcc aaagagacct acgggcatgg tagcaggtgt ctgttatccc agttaggagg 60
ctgaggcaag agaatctctt gaacctgaga ggcggaggtt gcagtgagcc aagatcgcgc 120
cattgcactc cagcctgggg gacaagagtg agacttagtc tcaaaaaaaa aaaaaaaaag 180
aaaaaaaaat cagggatata gttcatatcc cacttctttg tttacaccga tgtccctgaa 240
tatcagcctg tagctaatgg acttgggatt tctggtctaa gtgggcctcc tggggatggg 300
gtggtacact gagcttctga gcctcattgt agagtagaaa ggtactgggg cctgtgtggt 360
aagccttgtt gaaatgctct ggtattcagt attgccttaa taaacttcac ccagcaactc 420
gag 423

<210> 1897
<211> 182
<212> DNA
<213> Homo sapiens

<400> 1897
gaattcggcc aaagaggcct aatagaagtg agcaaaacaa aaatcccggt ccttgtggag 60
cttgtatttt gatgagaagg aggaattcaa attttaaact tctgttaaac gatattttat 120
ttccttattt gatttttatt ttgagaccga gtcttgctgt tgcccatgct ggagtgctcg 180
ag 182

<210> 1898
<211> 281
<212> DNA
<213> Homo sapiens

<400> 1898
gaattcggcc aaagaggcct attgaaacag acgtctgcaa acagaggact ggttttacca 60
tgttggccca gctggtcttg atctcgttaa catggtttta ccatgttggc caggctggtc 120
ttgatcttgt gacctcaggt gatccgcctg cctcggcctc ccaaggtgct ggggtttata 180
ggtgtgagcc accgtgcctg gctgaagtgt acatgtgttt aaatgagatg ctgaaagatg 240
aaaagaaggg gtgcatgaac aagagtgggg ctgggctcga g 281

<210> 1899
<211> 329
<212> DNA
<213> Homo sapiens

<400> 1899
gaattcggcc aaagaggcct atgaagatct ctattcctat gtgtctcagc ttggggctgg 60
tgggactttc cttctgtggg gcggatgtgg gtggcttctt caaaaaccca gagccagagc 120
tgcttgtgcg ctggtaccag atgggtgctt accagccatt cttccgggca catgcccact 180
tggacactgg gcgacgagag ccatggctgt taccatctca gcacaatgat ataatccgag 240
atgccttggg ccagcgatat tctttgctgc ccttctggta caccctctta tatcaggccc 300
atcgggaagg cattcctgtc aagctcgag 329

<210> 1900
<211> 163
<212> DNA
<213> Homo sapiens

<400> 1900
ggggattaca ggcatgagcc accgtgcccg gcctgcatcc attatttctt atcagatatt 60
ctgcgttctc ttctttttgc tcgctgccat tgccttactc tccaggctgc ttcatctcat 120
agactattgt cacagccatg tcaacttccc caggccactc gag 163

<210> 1901

<211> 212
<212> DNA
<213> Homo sapiens

<400> 1901
gaattcgcgg ccgcgtcgac cgaagggtct gaaacccaca cattcgtctt aaattttctg 60
aaatttattt acttgtttta aatatgatga taagagccgc ccacctgcat gggcttgtgt 120
ccctgctttt aatgtggatt tatgccactg atctgcattt tggacatcat aagaaatact 180
gctgtgcttc ccctacaccc acccaactcg ag 212

<210> 1902
<211> 195
<212> DNA
<213> Homo sapiens

<400> 1902
gaattcgcgg ccgcgtcgac cctaaagtta ctgctgacct tgaagcattg ttaaagacta 60
atgtcctctc ctccactgtt gaggctggct gcttctggag gctactttgc actcttcctc 120
ttctcctttt tccgcacttc tccacccctc ccacatttac agccagaatc aacattccct 180
gggccccatc tcgag 195

<210> 1903
<211> 275
<212> DNA
<213> Homo sapiens

<400> 1903
gaattcgcgg ccgcgtcgac ctgcaaacga tcaatctttc ctttaatagg tttaaaatgc 60
tacctgaagt tctatatcgt atcttcacac ttgaaacaat tctgattagt aataatcagg 120
ttggatctgt ggaccctcag aaaatgaaga tgatggaaaa tctgaccacg ttggaccttc 180
aaaataatga cctcttacaa attccaccag agctcggtaa ttgtgtaaac ttaagaacat 240
tactactgga tggaaatcca ttccgacatc tcgag 275

<210> 1904
<211> 153
<212> DNA
<213> Homo sapiens

<400> 1904
gaattcgcgg ccgcgtcgac gcagattgta cagaaagcta ccctagagtc cctgttggtg 60
gggaattgcc aacgtatttt ctgcctccgg aaaacaaagg actcaggatc cacgaactca 120
gcagtgatga ttattctaca gaagatactc gag 153

<210> 1905
<211> 177
<212> DNA
<213> Homo sapiens

<400> 1905
gaattcgcgg ccgcgtcgac caggatatca agtttacaac aatactaagt agtcttcagg 60
gctttttgga gagagtttta gacatcatag aagaacaaat taaatgccta aaggacaatg 120
aatctacttg tgttgctgac catatcaaca tggttttcaa aatacagcgc cctcgag 177

<210> 1906
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1906
gaattcgcgg ccgcgtcgac ggtatctgta tatctttcct tttgtttaca actgttaaaa 60

aacctcaaaa tagttctctt caaaagaaga gagattccaa gcaacccatc tttcttcagt 120
atgtatgttc tgtacatact tatcggtgcg ctcgag 156

<210> 1907
<211> 202
<212> DNA
<213> Homo sapiens

<400> 1907
gaattcgcgg ccgcgtcgac acaccccttg cctcttaaat cacagctcaa gaattgaccc 60
tggatcctat ccgcatattc tccagcctct gtctgtgatc actaacatac cctccctcat 120
gcatgtattc ctgtcattgg ggatactctg tgtacatgtc tcatttgtct acatcatgat 180
ctacttccta caacatctcg ag 202

<210> 1908
<211> 156
<212> DNA
<213> Homo sapiens

<400> 1908
gaattcgcgg ccgcgtcgac gatgcaagga catacgggac ggttattaaa gtctctgtgc 60
ttcatcagtc tttccttcct gttgctgcac atcattttcc acatcacgtt ggtgagcctt 120
gaagctcaac atcgtattgc acctggcacc ctcgag 156

<210> 1909
<211> 180
<212> DNA
<213> Homo sapiens

<400> 1909
gaattcgcgg ccgcgtcgac ctggattaca aggaattctt tgtagaaaat atcttgaaca 60
tttttgcct ttcttagtaa gtttgcccaa ttataaaagt tacagctttt gggccagatg 120
tggtggctca tgcttgtaat cctagcactt tgggaggctg aggcaggcgg atcactcgag 180

<210> 1910
<211> 297
<212> DNA
<213> Homo sapiens

<400> 1910
gaattcgcgg ccgcgtcgac gatacttgag gtaagaaacg ttttcactat gactgcgaaa 60
gagggaagaa agaaatcgat ccgtgtcttg gtggctgtgg ggaacggaaa aggagctgca 120
ggtttttcta ttgggaaagc tactgatcgg atggatgctt tcaggaaagc aaagaacaga 180
gcagttcacc atttgcatta tatagaacga tatgaagacc atacaatatt ccatgatatt 240
tcattaagat ttaaaaggac gcaatctccg tcgattgaat tctagacctg cctcgag 297

<210> 1911
<211> 319
<212> DNA
<213> Homo sapiens

<400> 1911
gaattcggcc aaagaggcct acaggagttg tgagtttcca agccccagct cactctgacc 60
acttctctgc ctgcccagca tcatgaaggg ccttgcagct gccctccttg tcctcgtctg 120
caccatggcc ctctgctcct gtgcacaagt tggtaccaac aaagagctct gctgcctcgt 180
ctatacctcc tggcagattc cacaaaagtt catagttgac tattctgaaa ccagccccca 240
gtgccccaag ccaggtgtca tcctcctaac caagagaggc cggcagatct gtgctgaccc 300
caataagaag tgggtccag 319

<210> 1912

<211> 635
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (460)..(461)

<400> 1912
gaattcggcc aaagaggcct agaagagcaa gcgccatgtt gaagccatca ttaccattca 60
catccctctt attcctgcag ctgcccctgc tgggagtggg gctgaacacg acaattctga 120
cgcccaatgg gaatgaagac accacagctg atttcttcct gaccactatg cccactgact 180
ccctcagtgt ttccactctg cccctcccag aggttcagtg ttttgtgttc aatgtcgagt 240
acatgaattg cacttggaac agcagctctg agccccagcc taccaacctc actctgcatt 300
attggtacaa gaactcggat aatgataaag tccagaagtg cagccactat ctattctctg 360
aagaaatcac ttctggctgt cagttgcaaa aaaaggagat ccacctctac caaacatttg 420
ttgttcagct ccaggaccca cgggaaccca ggagacaggn nacacagatg ctaaaactgc 480
agaatctggt gatcccctgg gctccagaga acctaacact tcacaaactg agtgaatccc 540
agctagaact gaactggaac aacagattct tgaaccactg tttggagcac ttggtgcagt 600
accggactga ctgggaccac agctggacac tcgag 635

<210> 1913
<211> 364
<212> DNA
<213> Homo sapiens

<400> 1913
gaattcggcc aaagaggcct acagcatggt gtgtctgaag ttccctggag gctcctgcat 60
ggcagctctg acagtgacac tgatggtgct gagctcccca ctggctttgg ctggggacac 120
ccgaccacgt ttcttggagc aggttaaaca tgagtgtcat ttcttcaacg ggacggagcg 180
ggtgcggttc ctggacagat acttctatca ccaagaggag tacgtgcgct tcgacagcga 240
cgtgggggag taccgggcgg tgacggagct ggggcggcct gatgccgagt actggaacag 300
ccagaaggac ctcctggagc agaagcgggc cgcggtggac acctactgca gaacaactct 360
cgag 364

<210> 1914
<211> 159
<212> DNA
<213> Homo sapiens

<400> 1914
gaattcggcc aaagaggcct aggcgtaatc tgtcataatc ttcttgtcca gctgtatccc 60
ataagcccag attcaccggt tttccatcta ccataacatt ggcagaataa ttgtcaaaga 120
cagtagggat atattctcca ggaaatgcat tggttgtgg 159

<210> 1915
<211> 470
<212> DNA
<213> Homo sapiens

<400> 1915
ggaatcggcc aaagaggcct agttttgggt cgataggaga aatcattatc ctttatttgc 60
agccattcca ccccacctat ggtttcttc tccttccttc ttctctgtca ggagagttct 120
tgtcatgctg agcttcttca tttgtatggc atttatattt tagcactgtt ttattattgc 180
cttctgtatc agcatgttca acattttctt caaatataac acaggtccct agagtgtctt 240
catactcccc agcaaagaca cagctgtcca cttgcagaat gggcctctca gtgtcaatgc 300
ccaaaacctt gcatttattt tcacattttg agaggaagtc tgaatcaata attcctgata 360
attccaccag aaccaactgc tcctcctctt cctcgtcctc tccgtcctct gggactccgc 420
tcgtccgccg ccgccgccat ggtcccgcgg cgcctcgtag cctctttgcc 470

<210> 1916
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (128)

<220>
<221> unsure
<222> (288)

<220>
<221> unsure
<222> (317)

<220>
<221> unsure
<222> (336)

<220>
<221> unsure
<222> (368)

<220>
<221> unsure
<222> (375)

<400> 1916
tagatgcagc tcttttcatt ttggcatcct tttccagctc catgatggtt ctgcaggttt 60
ctgcggcccc ccggacagtg gctctgacgg cgttactgat ggtgctgctc acatctgtgg 120
tccagggnag ggccactcca gagaattacc ttttccaggg gacggcagga atgctacgcg 180
tttaatggga cacagcgctt cctggagaga tacatctaca accgggagga gttcgcgcgc 240
ttcgacaccg acgtggggga gttccgggcg gtgtcggagc tggggcgncc tcctccggag 300
tactggaaca cccagangga catcctggag gagaancggg cagtgccgga caggatgtgc 360
agacacanct acganctggg cgggcccatg accctcacag aa 402

<210> 1917
<211> 381
<212> DNA
<213> Homo sapiens

<400> 1917
gaattcggcc aaagaggcct atgtgcatat tgctagctca tggccaacat ttgtttacag 60
ttgcttaaat atttgctgag tttgggcaaa tgcatagacc tgtgtaaccc aagcccgtat 120
caaagtacat gttaccacat ccccgaagcc cttcctgctt cctgccattt cctgctcagt 180
cctgcccatg catatctccc agcactgccc ctccctgtct gcacctggag cccaggagag 240
gaggcctcag ctgagcctgc atctctaggg aagaatcctg gtcccgggat ccacctcctt 300
cctggccctt gctccatgca gctcccaccc agtcccgatt tcctgaccct tgctccctgc 360
agtcccagct cccaccggcc g 381

<210> 1918
<211> 164
<212> DNA
<213> Homo sapiens

<400> 1918
ggatgatgac gtttttacaa cagctacaga cagttcttct aattcctctc agaagagaga 60
gcaacctact cggacaatct cctctcccac atcctgtgag caccggagga tttataccct 120

gggccacctc cacgactcat accccacaga ccactattct cgag 164

<210> 1919
<211> 433
<212> DNA
<213> Homo sapiens

<400> 1919
gaattcggcc aaagaggcct agacctgacc tgccatctgg agaaacctgc caaatatgat 60
gacatcaaaa aggtggtgaa gcaggcgtca gagggcccct caagggcatc ttgggctaca 120
ctgaacacca ggttgtttcc tctgacttta acagtgacac tcactcttcc actttcgatg 180
ctggggctgc cattgccctc agtgaccact ttgtcaagct catttcctcg tacaacagtg 240
aatttggcta cagcaacagg gtggtggccc atatggcctc caaggagtaa gactgctcga 300
caaccagccc cagtgagagc acaagaggaa gaaagagacc ttcagcttct gggcagtccc 360
tgccatgctc agtcccccac cacactggga atctcccctc ttcacagttt ccatgcagac 420
cccacaactc gag 433

<210> 1920
<211> 384
<212> DNA
<213> Homo sapiens

<400> 1920
gaattcggcc aaagaggcct aggggagatc tggatggcat ctacttcgta tgactattgc 60
agagtgccca tggaagacgg ggataagcgc tgtaagcttc tgctggggat aggaattctg 120
gtgctcctga tcatcgtgat tctgggggtg cccttgatta tcttcaccat caaggccaac 180
agcgaggcct gccgggacgg ccttcgggca gtgatggagt gtcgcaatgt cacccatctc 240
ctgcaacaag agctgaccga ggcccagaag ggctttcagg atgtggaggc ccaggccgcc 300
acctgcaacc acactgtgat ggccctaatg gcttccctgg atgcagagaa ggcccaagga 360
caaaagaaag cagtggagct cgag 384

<210> 1921
<211> 379
<212> DNA
<213> Homo sapiens

<400> 1921
gaattcggcc aaagaggcct accaaaaaag aacaattttt tttttaaat tagccaggtg 60
tggctgggtg cagtggctca cacctgtaat cctagcactt tggaaggctg aggcgggcgg 120
atcacttgag gccaggagtt tgggaccagc ctggccaaca tggcaaaacc ccgtctttac 180
tgaaaataca aaacttagcc aggcatggtg gcgcacatcc gtggtcccat ctactgggga 240
ggctgaggga ggagaattgc tcaaacttgg gaggccggag gttgcggtga gccatgatgg 300
caccactgtc ctccagcatg ggcaacagag caagaacctg tctcaaaaga aaacaaaacc 360
aggtgtgatg gcactcgag 379

<210> 1922
<211> 491
<212> DNA
<213> Homo sapiens

<400> 1922
gaattcggcc aaagaggcct aagtttatct aaatcctttc tcatcatatt tattatgtca 60
acctgtactt ccctttccct cttcctctcc ctcttttctc tccctctccc tctctctctc 120
ttccttcccc ccttccaggt accctagatg aaccatggga ggtcctggct acacagccat 180
tctgtctgag agagtctgag gactctgaga cccagccttt tgacacgcac cttgaggcct 240
atggaccttg cctgtctcca cctagggcaa taccaggaga ccaacatcca gagagcccag 300
ttcacacaga gccaatgggg attcaaggca gagggaggca gactgtggat aaagtcatgg 360
gtataccaaa agaaacagca gagagggtgg gccctgagag agggccattg gagagagaaa 420
ctgagaaact gctaccagaa agacagacag atgtgacagg agaggaagaa ttaaccaagg 480
gaaaactcga g 491

<210> 1923
<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (248)

<220>
<221> unsure
<222> (299)

<400> 1923
gaattcggcc aaagaggcct atgtggtttt gtttttttctt tccctttttt gttcctccaa 60
acaaaaacaa aatgcaggcc gagcgcggtg gctcacgcct gtagtcccgg cactttggga 120
ggccgaggcg ggcggatcgt gaggtcagga gatcgagacc atcctggcta acacggtgaa 180
gccccgtctc tactaaaaat gcaaaaaatt ggctgggtgt ggtggcgggc gcccgtagtc 240
ccagctantc aggaggctga ggcaggagaa tggcatggac ctgggaggca gacttgcant 300
gagccaggat cacaccactg cactccagcc tgggcgaaag agtgagaatc cgtttcaaaa 360
aaaaaaaaaa tgcattgttt ataagccctg ctgtctagaa gtattgcgtt tagccatttt 420
gagtacagca ttaaattgag gagtggggaa gagggaaatt cacttgattt ttgctgcaca 480
ggatatttgc caaaaataaa tgagattttc tggggctcct cgag 524

<210> 1924
<211> 392
<212> DNA
<213> Homo sapiens

<400> 1924
gaattcggcc aaagaggcct agttttgttt ccccaaaata gaaagagatt ctctcctatt 60
tcctgcccta cgttggcaag aggtgatcaa ggaactggtg tacagtacac tgaacacagc 120
tataccttgg gatgaggtgt caggtgagca accaaggaca acccagctgc atgtcacact 180
gtaagggaga ttccatttct ttttcttttc tttttctttt ttttcttttt tcttttttttg 240
aggtggagtc tcgttctgtc acccaggctg gagtgcagtg gcgcgatctc agcttaccgc 300
aacctctgcc tgctgggttc aagcgattct cctgcctcag ccttctgatt agctgggatg 360
acaggcgtgc accacgaggc caggctctcg ag 392

<210> 1925
<211> 418
<212> DNA
<213> Homo sapiens

<400> 1925
gaattcggcc aaagaggcct agactgcagc tcttttcatt ttgccatcct tttccagctc 60
catgatggtt ctgcaggttt ctgcggcccc ccggacagtg gctctgacgg cgttactgat 120
ggtgctgctc acatctgtgg tccagggcag ggccactcca gagaattacc ttttccaggg 180
acggcaggaa tgctacgcgt ttaatgggac acagcgcttc ctggagagat acatctacaa 240
ccgggaggag ttcgtgcgct tcgacagcga cgtgggggag ttccgggcgg tgacggagct 300
ggggcggcct gatgaggagt actggaacag ccagaaggac atcctggagg agaagcgggc 360
agtgccggac aggatgtgca gacacaacta cgagctgggc gggcccatga ccctcgag 418

<210> 1926
<211> 434
<212> DNA
<213> Homo sapiens

<400> 1926
gaattcggcc aaagaggcct aagaacacca actgctgagg ctgccttggg aagaggatga 60
tcctaaacaa agctctgctg ctgggggccc tcgctctgac caccgtgatg agcccctgtg 120

gaggtgaaga cattgtggct gaccacgttg cctcttgtgg tgtaaacttg taccagtttt 180
acggtccctc tggccagtac acccatgaat ttgatggaga tgagcagttc tacgtggacc 240
tggagaggaa ggagactgcc tggcggtggc ctgagttcag caaatttgga ggttttgacc 300
cgcagggtgc actgagaaac atggctgtgg caaaacacaa cttgaacatc atgattaaac 360
gctacaactc taccgctgct accaatgagg ttcctgaggt cacagtgttt tccaagtctc 420
acgtgacact cgag 434

<210> 1927
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (308)

<400> 1927
gaattcggcc aaagaggcct actattcaaa tccttggcct atttttaaat tgaattgtct 60
ttgtattatc aagttgtaag agttctctag ataatctcga tagaagtccc ttgtcacata 120
tgcgatttgc atgtatttcc tctctttctg tgggtgtttg ttgttgttgt tgtttgtttg 180
tttttctgag acagagtctc gctctgttgc ctaggctgga gcgtagtggt gccatctcgg 240
ctcactgcaa tctctgcctc ccgggttcaa gcaattctcg tgcctcagcc tcccaagtag 300
ctgggatnac aggtgcgcat caccacaccc agctcatttt tgtattttta gtagagacag 360
ggtttcgcca cttcagccag gctggtctcg ag 392

<210> 1928
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (306)

<400> 1928
gaattcggcc aaagaggcct actcgcgggg gtttattgta cagattattt cgtcacccag 60
gtactaagcc tagtacccaa tagttacttt ttctgatctt ctccctcctc ctaactcttc 120
accctcaagc aggccccagt gtctgttgtt tccctttgtg tccatgaatt ctcatatgat 180
gttcttcttt ctttccttct ttccttcctt cctttctttt tcttttcttt tctttcttct 240
ttctctctct cttctctctc tctctttctt tcaattgaga cactgtcgcc aaggctgcag 300
tgcagnagca ggatctcagc tcactgcagc cctctgcctc ccaggtttca gcgagtttcc 360
tgcctcagcc tccccagtag ctgggactac aggcacacac caactcgag 409

<210> 1929
<211> 328
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (20)

<220>
<221> unsure
<222> (65)

<220>
<221> unsure
<222> (89)

<220>
<221> unsure
<222> (102)

<220>
<221> unsure
<222> (106)..(107)

<220>
<221> unsure
<222> (109)

<220>
<221> unsure
<222> (132)

<220>
<221> unsure
<222> (170)

<220>
<221> unsure
<222> (183)

<220>
<221> unsure
<222> (202)

<220>
<221> unsure
<222> (206)

<220>
<221> unsure
<222> (247)

<220>
<221> unsure
<222> (282)

<220>
<221> unsure
<222> (299)

<400> 1929
gggatgtcaa tcatgatctn ttcatatatg ctggctatag aaattggtct cggtgaagta 60
atggnctgtc tgtcaagcat gacatcctng cctgtgttaa gnttgnngnt gctctcctgg 120
gatgttgatc gngacgtctt gtccgggatt gagaagcttc tgttgctctn ctgggatgtc 180
atncatgatc tctccatata tnctgnctat agaaattggg ctctgtgaag aaatagtgtg 240
tccaaancct tggtacaggc cccctgggga gggtaccttt gnagaaccag aagttaganc 300
ttgtgaagaa gaagaaagta ggctcgag 328

<210> 1930
<211> 378
<212> DNA
<213> Mus musculus

<400> 1930
gaattcggcc aaagaggcct acactctctt gtagtaacag aagctacctg ctataataaa 60
gacctcaaca ctgctgacca tgatcagccc agcctggagc ctcttcctca tcgggactaa 120

aattgggctg ttcttccaag tggcacctct gtcagttgtg gctaaatcct gtccatctgt 180
atgtcgctgt gacgcaggct tcatttactg taacgatcgc tctctgacat ccattccagt 240
gggaattccg gaggatgcta caacactcta ccttcagaac aaccaaataa acaatgttgg 300
gattccttcc gatttgaaga acttgctgaa agtacaaaga atatacctat accacaacag 360
tttagatgaa ttctcgag 378

<210> 1931
<211> 272
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (184)

<220>
<221> unsure
<222> (261)

<400> 1931
cccactcccg cttcttatca agctgcttcc ttttctccag cctctcctgc tttagcttct 60
ccttctcctt ctccagctct ttgtttttgg tgaggatggt ggctttgctt ttaggagtct 120
ttttgttaag gatttttggc atggcatctg cccagcctga attggtccca gcactcgact 180
ctgnggcgtc ttcattgtct tcctcacagg attcaacatt gtcctcactg tctgcttctg 240
cagctccatc atctgagtgg ncccatctcg ag 272

<210> 1932
<211> 391
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (18)..(19)

<220>
<221> unsure
<222> (21)

<220>
<221> unsure
<222> (39)

<220>
<221> unsure
<222> (44)

<220>
<221> unsure
<222> (52)

<220>
<221> unsure
<222> (66)

<220>
<221> unsure
<222> (73)

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<221> unsure
<222> (115)

<220>
<221> unsure
<222> (142)

<220>
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<222> (151)

<220>
<221> unsure
<222> (170)

<220>
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<400> 1932

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ccacacccct caccagaaca gnctcgcctg nagacaccac tccactccgn cggggacccc 180
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ctccagcacc cagtacccga aggcctccag cccccaatct gtatgtgtcc cctgagntnc 300
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<210> 1933
<211> 421
<212> DNA
<213> Mus musculus

<400> 1933
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gaatcccagc cagggacgtt tttctattgg gcattaactt tcgactgctt tgcacaagtt 180
tcgtattaaa aacaactcta cctgaccgct ctgagaatta ctagtttctt ttttatatat 240
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a 421

<210> 1934
<211> 439
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (424)

<220>
<221> unsure
<222> (432)

<400> 1934
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ggtccacggc atcctggaag ggatccgggt ccccttccct attcctgagc ctgacggttg 300
taagagtgga atcaactgcc ccatccagaa agacaaggtc tacagctacc tgaataagct 360
tccggtgaag aatgaatacc cctctataaa actggtggtg gtatggtgac atgaagtgaa 420
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<210> 1935
<211> 374
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (139)

<400> 1935
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gggaagaagg tggaggtgnc agtggagcag aaaaatcttc aggtccctgg aataaaaccg 180
ctccggtaca agcgcctcct gctccagtaa cagttacaga aaccccggag ccagcaatgc 240

ccagtggtgt attcaggcct cctggggcaa ggctaaccac aacaaggaaa acgccacaag 300
gaccaccaga aatatacagt gacacgcagt tcccatccct gcagtccact gccaagcatg 360
tagatagcct cgag 374

<210> 1936
<211> 364
<212> DNA
<213> Mus musculus

<400> 1936
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cctggtagag gagtgtgctc tgggccagga cctctgcagg actaccgtgc ttcgggaatg 180
gcaagatgat agagagctgg aggtggtgac aagaggctgt gcccacagcg aaaagaccaa 240
caggaccatg agttaccgca tgggctccat gatcatcagc ctgacagaga ccgtgtgcgc 300
cacaaacctc tgcaacaggc ccagacccgg agcccgaggc cgtgctttcc cccagggccg 360
ttac 364

<210> 1937
<211> 407
<212> DNA
<213> Mus musculus

<400> 1937
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ccaagttttc cctctgctcg gattgatact tagaatttct tacctacgtc atagctgctt 120
tctaaaaaca gaatttttta acacctcctg tttgttctct tgggatagat taagggtggg 180
aaatgtgggc aagaaaagag atgacaaact gctctgctga agtttcatgg aaatctgact 240
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<210> 1938
<211> 300
<212> DNA
<213> Mus musculus

<400> 1938
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cctgaggctc accgaaaaaa actttctcag ccctctgact ccagagagag agagagagag 120
gtactttttg tggtcaccga ctttgacccc tgcagaggct gagcgatggc gtctatggga 180
ctacaggtcc tgggaatctc cttggcagtc ctgggctggc tggggatcat cctgagttgt 240
gcgctcccca tgtggcgggt gaccgccttc atcggcagca acatcgtcac ggcacagaca 300

<210> 1939
<211> 340
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (4)

<220>
<221> unsure
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<220>
<221> unsure
<222> (114)

<220>
<221> unsure
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<221> unsure
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<221> unsure
<222> (267)

<220>
<221> unsure
<222> (321)

<400> 1939
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tgctctcctg ggatgttgat cgngacgtct tgtccgggat tgagaagctt ctgttgctct 180
nctgggatgt cacacatgat ctcttcatat atgctggcta tagaaattgg gctctgtgaa 240
gaaatagtgt gtccaaaacc ttggtancag ccccccctgcg gagggtacct ttgaagaacc 300
agaagttaga tcttgtgtag nagaagaaag taggctcgag 340

<210> 1940
<211> 523
<212> DNA
<213> Mus musculus

<220>
<221> unsure
<222> (12)

<220>
<221> unsure
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<220>
<221> unsure
<222> (468)

<220>
<221> unsure
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<220>
<221> unsure
<222> (473)

<220>
<221> unsure
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<221> unsure
<222> (509)..(510)

<400> 1940
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cgctaaaaag aaaaagaaag gcgaggagga ggtgactnct gtggatggtt atgagacaga 180
ccaccaggac tattgcgagg tgtgccagca agggggagag atcatcctgt gtgatacctg 240
tccccgagcc taccatatgg tgtgcctgga cccagacatg gagaaggccc cggagggcaa 300
gtggagctgt ccccactgtg agaaggaggg gatccagtgg gaagctaagg aggacaattc 360
tgagggtgag gagattctgg aagaagtcgg gggggaccag aagaggagga tnaccatcac 420
atggaattct gtcgcgtctg caaggacggn ggggagctcc tgtgntgnga nanaaaccct 480
tcttccaacc acaaccactn tctaggccnn gtggggcgaa ttc 523

<210> 1941
<211> 267
<212> DNA
<213> Homo sapiens

<400> 1941
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tgctggttgg tggtaactgt ggcagaagga caagaagagg tatttacgct tcctggagat 120
tcacaaaata atgcggacgc taccgactgc cagatcttta cactcacccc tccacctgcc 180
ccgaggagtc cggtcacaag ggcccagccc atcacaaaga cacccaggtg tcccttccat 240
ttttttccac gaaggcccag actcgag 267

<210> 1942
<211> 306
<212> DNA
<213> Homo sapiens

<400> 1942
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aataatgaat cagtatttct gtcaacttta gagagacctg ctgaaatccc caaattcact 120
gtgattctcc aggaagttac cagggcctga gctaatgaca tggccaacag caagcctgca 180
agatgaaagc agtttattaa tactcatacc attgaggatt ccaggaagga aagcagactc 240
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ctcgag 306

<210> 1943
<211> 386
<212> DNA
<213> Homo sapiens

<400> 1943
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atggctgata tttaacagaa agtgatcaag agctatctcc cactgctagt gagaaaacta 180
ataactaaaa gaatggttga ctgatgagca ggtgactgac aggatcaaca aagtaacaga 240
aagtaaaacc taacacagga agaattctag gatttgtgta ggtaggccaa aaggtaaagg 300
ccaggcagtt attatagtca agagtgccaa gagtgtagtc agagtcagtc agaaaaacaa 360
actcagggta acaaggggca ctcgag 386

<210> 1944
<211> 368
<212> DNA
<213> Homo sapiens

<400> 1944
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catacagtcc attaatagtc ccattaaagg cattcttcac ctcttttgca gtgtttttta 180
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actattgttg catgctgtct actttatcca ttagcgcctt taacgtgtta atcatagttg 300
ttttaaattc cctgtctgtg tgttacatct ctgccatgtc tggttctgat gctcacccta 360
atctcgag 368

<210> 1945
<211> 273
<212> DNA
<213> Homo sapiens

<400> 1945
gaattcggcc ttcatggcct agtggtagaa ctttaagatt tgaagcttta acgagagtca 60
gctagtttgc agtgattaga gacttgtaag ttaattgata tacacacttt tgtctatatt 120
tattaagttt ctcaggggaa ttgtagatta tttcagagtg cagttttagg tcgtggatca 180
gatttaagtt ggaagtaaat aatggttatt actagaattt tttgtttttg tttgtttttg 240
agaaggagtc tttctctgac acccaagctc gag 273

<210> 1946
<211> 370
<212> DNA
<213> Homo sapiens

<400> 1946
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gtgtgataat ctagagcaca aactaaatga tctcctaaaa gaaaagcagt ctgtggaaag 180
aaagtgcact cagctaaaca caaaagtggc caaactcacc aacgagctca aagaggagca 240
ggaaatgaac aagtgtttgc gagccaacca agtcctcctg cagaacaagc taaaagagga 300
ggagagggtg ctgaaggaga cctgtgacca aaaagatctg cagatcaccg agatccagga 360
gcatctcgag 370

<210> 1947
<211> 822
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (155)

<220>
<221> unsure

<222> (231)

<220>
<221> unsure
<222> (270)

<400> 1947
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caggcccgcg gccagcaggc ccagcctcct gcacncaccc tccacttgtg ccacccgcgg 180
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<210> 1948
<211> 774
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (263)

<400> 1948
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attccagtca cagatcagtt ctaaccctga gctggcggct atctttgaaa gtatccagaa 180
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tttggctttc ttccattgtt gtttttgtag catttatttc agaaatgtgt atttccataa 420
tccagaggtt gtaaaaccac tagtgtttta gtggttacag caacatttga aatggaaact 480
aaaagttagg attttatgga gtatggagat agggtccagt atctatttac cctgtaatgt 540
ttaggattaa aatgttaaaa ttttgtgacc atgaatttct ttcttttata aatttctca 600
tttaaaaatc aaaaatcttg caaaacaaaa accatgtttc tttttcttgt ataacttttt 660
gttttcagca acataaattg atttttagct ggcagacaag aatatccata taagatttgt 720
taaccatttc agagagtttg gcaattttta aaagataata aggtatcact cgag 774

<210> 1949
<211> 404
<212> DNA
<213> Homo sapiens

<400> 1949
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ggcgcatgag tcaggagggt gagtctgaag aagagaattc tcaggaggag aactctgagc 120
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aaggccggaa caatcatcga gctcgcaaca agcggggaag tcgggctcgg gccagcaagg 360
acacctccaa gctgctgttg ctgtatgatg aggacattct cgag 404

<210> 1950
<211> 630
<212> DNA
<213> Homo sapiens

<400> 1950
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aacactggaa tcctactttt tctggtactt ttgacttcag tgacattgct gtctatatat 180
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tcaacaaatg ctgacacgtg tacgctcgag 630

<210> 1951
<211> 457
<212> DNA
<213> Homo sapiens

<400> 1951
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agaagccgga gaaactggaa gaatcatttt gccaaatgtg aattcagaca gtgttcacac 180
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tgctgtaaat acgatgtgta ataccaaaac ggatgtaatc acatctgctg ccgatactac 300
cagtgtttcc agctggggtg gttcagaagt aatttcctct ttatcaaata ccattttggc 360
ctctacatca tcagaatgtg tatcttcaaa aagtgtcagt cagccagtgg ctcaaaaaca 420
agaatgcaag gtcagcacca cagcaccaga gctcgag 457

<210> 1952
<211> 742
<212> DNA
<213> Homo sapiens

<400> 1952
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aaaacatctt tagctatggc atccaagtca gaggtgtcct gaatgttgcg tacatagtca 180
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cggctcagtt ttagggcatg ggcactgaaa tagtagggga tgttgcacag tgcataatca 480
gagtcatacg caaccaagcc atggaaacca ttctctctgc agaaaccaat cacttcctga 540
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cagtgggcca tgcagacggg cggcaggaac cagacctttg gcggcggggt gcccttgttc 660
tggacatggc tgacgattgc tgtgccgttt ggcgctcgtt gccctgccgc ttgacccact 720
cgtgcagccg ggccttctcg ag 742

<210> 1953
<211> 222
<212> DNA
<213> Homo sapiens

<400> 1953
gaattcgcgg ccgcgtcgac gtggctgttg ggaatgttgg tttcttggaa gaacgtgctc 60

agcgcggtct cgaactgcca gtgggccgcc tgcagcagct gcttcgcctg gtcggccgcg 120
cagcccgcgg ccagcacgaa ctggttgatc atgacctggt gccgcagctc gtccatgttc 180
accgacatgg cgcggcgcgg cgcggggccc ggcgacctcg ag 222

<210> 1954
<211> 527
<212> DNA
<213> Homo sapiens

<400> 1954
gaattcgcgg ccgcgtcgac gtgggattac aagcgtgagc taccacaccc ggccaattta 60
tatttttagt agagatgggg tttggccatg ttgaccaggc tggtcttgac ctcaggcaat 120
ctgcccgcct cagcctccca aagtgctggg attacaggcc tgagtcactg cgcccagcct 180
gagatgtttt ttagatacac aaagtagaga tgttcagtga atactttgat gtgggtctac 240
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cacaatcata gctcagtgca gcctccaact cctagagtca agtgatcctc ctgcctaagc 420
ttccagagtc gctggaatta caggcacgcc accatgcctg gctaattttt aaattttttg 480
tagagggaaa agagggaaaa gaacaggccc taggactgag gctcgag 527

<210> 1955
<211> 530
<212> DNA
<213> Homo sapiens

<400> 1955
gaattcgcgg ccgcgtcgac aaggcgaaga atggcaaagg ctccgcagtc tcctggcccc 60
gctcctcctc cggcctcaag cggccgcccg ctacgccgga accctgaaca acgtagtctg 120
cgaccttgtg cggcgtctga ggcgccagcg gggacgtggc acggggccgc ccgccctggt 180
tcgggacgtg gcgggggaat tttacaagtt cggactggaa ggtgagtccc aggacagagc 240
tgggcaggcg tcgggggcgc cctaccagag cctcccggaa ccctgacggc gccccctccc 300
gacaaggcat cgccgcggtt ctgctcggct cgcgcttggg ctgcctggag gctcaagtgc 360
cacccgacac ggagaccttc atccgcgctg tgggctcggt gtttgtgtcc acgctgttga 420
ccatggcgat gccccactgg ctgcgccacc ttgtgcctgg gccctggggc cgcctctgcc 480
gagactggga ccagatgttt gcatttgctc agaggcacgt gggtctcgag 530

<210> 1956
<211> 518
<212> DNA
<213> Homo sapiens

<400> 1956
gaattcgcgg ccgcgtcgac caaatcaaag aagcatcgtg tcagaaacag gagaaaattg 60
aagtcatgtc tttgggtcga tgtcaagata acacaactac aactactaag tctgaagatg 120
ggcattatgc aagaacagat tatgcagaga atgctaacaa attagaagaa agtgccagag 180
aacaccacat accttgtccg gaacattaca atggcttctg catgcatggg aagtgtgagc 240
attctatcaa tatgcaggag ccatcttgca ggtgtgatgc tggttatact ggacaacact 300
gtgaaaaaaa ggactacagt gttctatacg ttgttcccgg tcctgtacga tttcagtatg 360
tcttaatcgc agctgtgatt ggaacaattc agattgctgt catctgtgtg gtggtcctct 420
gcatcacaag gaaatgcccc agaagcaaca gaattcacag acagaagcaa aatacagggc 480
actacagttc agacaataca acaggggcgt ccctcgag 518

<210> 1957
<211> 189
<212> DNA
<213> Homo sapiens

<400> 1957
gaattcggcc aaagaggcct agggagctga atgaatgaat tagatttggg gtttttgtt 60
gtttttgttt tgttttttga gatggagttt tgctcttgtt gcccaggatg gattgcagtg 120

gcgcgatctc agctcactgc aagctctgcc tcccaggttc acgccattct cctgccccag 180
cacctcgag 189

<210> 1958
<211> 134
<212> DNA
<213> Homo sapiens

<400> 1958
gcctaaaccg tcgattgaat tctagacctg cctcgaggag cctctgagca ttttcctttc 60
cctcactgct ttagaaacct ctattcagat ttttcatatt aatgattctt ttgcttttaa 120
cccaactcct cgag 134

<210> 1959
<211> 126
<212> DNA
<213> Homo sapiens

<400> 1959
gaattcggcc aaagaggcct ctttggccga attcggccaa agaggcctag tgaagtggac 60
caaaggtcta gaattcaatc gacggtttag gccaaaccgt cgattgaatt ctagacctgc 120
ctcgag 126

<210> 1960
<211> 134
<212> DNA
<213> Homo sapiens

<400> 1960
gaattcggcc aaagaggcct agacccatat aaaattagaa agaaaaaagg agacactata 60
actgatccca cagaaataca aacttattag acactattat gaacttaaac atttctccca 120
agtttctccc tata 134

<210> 1961
<211> 309
<212> DNA
<213> Homo sapiens

<400> 1961
gaattcggcc aaagaggcct agtcttgatc cccacacatc tttccagcct cccctcccac 60
tccactccct gctccctcct ccacctcccc atcctcttgt ctcccctccc ctctgaatcc 120
agcccagcgg ggcttctcct gcctccatca catcacagaa gtacctcctg cttctggttt 180
taattagagc cttccccgat tacattttcc tctgaatttt ttcctatcta catttgatct 240
gtcatgttta aaccccctac ttctaaggga acttctctaa tctcttatcc tcatccccaa 300
atactcgag 309

<210> 1962
<211> 361
<212> DNA
<213> Homo sapiens

<400> 1962
gaattcggcc aaagaggcct agcatgaggg tctgtttaga gagcctcagt attaggaatc 60
agaggtggca gaggtagcct ttttaattgg ctgttataag catacaagat aatggtaagt 120
tttaagataa gtcttaaacc tgagctcaaa agttagagaa cagaaatagg agaacaagaa 180
aaataaagtt gccctttcag tttaaccttt taacagtagc agtgtttgtc agttttcttt 240
tggaagtttg tatctacctg cagtgcttgg taagaaaaat aacctgggcg acagagtgag 300
aatccgtctc caaaaaaaaa gaaaaaaaga aagaaaaaga accattccta cccctctcga 360
g 361

<210> 1963
<211> 442
<212> DNA
<213> Homo sapiens

<400> 1963
gaattcggcc aaagagccta gtggagcttt tggagttttt catagttggc attcagcttc 60
ttggatgtgt agatttatat cttttaccag atttggaaag gtttggccat tatttcttca 120
aatagtcttt ctgccccttt ctctccttct ggaactccca taatgtgtat gttggtctgg 180
ttgatgccac agtttcctta gtctctgttc actttttcat cctttttctt tctgttcctc 240
acacttgata atttcatttg tcctatcttc aagttcactg gtttttttc ctctgcctgt 300
tcagatctgc tgttgaagcc ttctagtgaa attttaactt cagctattgt acttttcagt 360
gctagaattt ctatttggtt ctattttcga tctctttcat gatatttttt ctttgttaag 420
tcatcatctt cctggtctcg ag 442

<210> 1964
<211> 122
<212> DNA
<213> Homo sapiens

<400> 1964
gaattcggcc aaagaggcct agtctatgct tgaaattttc catgataaca agtttttttgg 60
gattttttttt gtttttaat tacaaaacaa cctgttcacc ctatgtttct tcaacactcg 120
ag 122

<210> 1965
<211> 330
<212> DNA
<213> Homo sapiens

<400> 1965
gaattcggca aagaggctac cgggacgccg tgaggcggaa gctgtgtatg gcgggaggct 60
gtggcggtcc cttggtgggg aagctgttgc tgttgctaga cgacgggaac tagctctcgt 120
cacttcctca gcccgccgtc tgcccactcc tctagccgga acctgggggc ccggagccgg 180
ggtaggcaca gagttgtcct cggaggtcca ggacagcggc cagcccggcg gcgggagtca 240
gggccacgcc acctgcaggg aagaacccga gtcgaagcgg gaagatggct gcagacaagc 300
ctgcagatca gggagcagga aacactcgag 330

<210> 1966
<211> 122
<212> DNA
<213> Homo sapiens

<400> 1966
gaattcgcgg ccgcgtcgac agaatgcttc tttctgacac actggtgttg ttaaattgct 60
atcagatcct tcttttaaga tatttggcca tcaaaattca ctatgaatcc ccacagctcg 120
ag 122

<210> 1967
<211> 110
<212> DNA
<213> Homo sapiens

<400> 1967
gaattcgcgg ccgcgtcgac ctctgttatt tggttggtgc tatacttgta ccgtaaacaa 60
gttttaaaac ggtgatgata ttaacaaaga aaatcccggt cattctcgag 110

<210> 1968
<211> 259
<212> DNA

<213> Homo sapiens

<400> 1968
gaattcgcgg ccgcgtcgac caaaataagc catgctgctt tgcacacaca ctagccttct 60
tttgtacttt tcttctggat gggcttggcc aaaacaggct caggccaaag acctcccaag 120
ctgtatgtac tttccagtatc ctgaaacagt gtttggtgac ataatgccaa gggtaaacaa 180
gcctgattta ggcactgctt tatccagggg cttcacccat gaaattaata aaacttatct 240
gagtcacttg aaactcgag 259

<210> 1969
<211> 218
<212> DNA
<213> Homo sapiens

<400> 1969
gaattcgcgg ccgcgtcgac gtgactctac tagaagagga ctcttagaag gtttcctccg 60
gactttactc catgtaccct ttccctttgc tgattttgct ttgtatcctt tccactgcaa 120
tacattttag ccatgagttc aatgaacata tgcagagtcc tggaagtcat ctctcgttag 180
ccaccaaacc tggaggtggt cctgcggatc ctctcgag 218

<210> 1970
<211> 237
<212> DNA
<213> Homo sapiens

<400> 1970
gaattcgcgg ccgcgtcgac aatcaaggca attaggatat tcatctcaaa cgtttatcat 60
ttctttgtgt tgggaacatt ccaaatcttc tagctatttt gaaatataca ataaattatc 120
attaactatc atcaccctat gctgctatta aacactagaa cttatttatt ctctctgact 180
gtatttttgt acctattatc caccctctct tcatccccac cccctactca actcgag 237

<210> 1971
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1971
gaattcgcgg ccgcgtcgac ggggagttgt ataggaactt acctagataa atttgtttat 60
tcctgtgtcc agaaaccaac ctttgatcat tcacacacag gactgctgtc tacttgggat 120
gttgacaatg tttattgccc acaaattgtg tttgctccaa gcctttgtca ttaaatttgt 180
gctaaataaa tgtgagggcc accagcttaa ggggactgct aactctcttc ggcccctagt 240
gctggcagtc ccctggccgc tcgag 265

<210> 1972
<211> 326
<212> DNA
<213> Homo sapiens

<400> 1972
gaattcgcgg ccgcgtcgac atgggctaca acagtgacag tcccatgggt tccatgaccc 60
ctttcatcag tgctcttcag agtacagact ggctctgtaa tggggagctt tcccatgact 120
gtgacggacc cataactgac ttgaattctg atcagtacca gtacatgaat ggtaaaaaca 180
aacattctgt tcgaagattg gacccagaat actggaagac tatactgagt tgtatatatg 240
tttttatagt atttggattt acatctttca ttatggttat agtccatgag cgagtgcctg 300
acatgcagac caatccacca ctcgag 326

<210> 1973
<211> 188
<212> DNA
<213> Homo sapiens

<400> 1973
gaattcgcgg ccgcgtcgac cctgaaatga gattatcttt cattgtgttt tcttctcaag 60
caactattat tttgcctctg tctccagtta atggcaaaat cagtaaaggc ttggaggatt 120
taaaacgtgt tagtccagta ggagagacat atatccatga aggactaaag ctagcgaatg 180
aactcgag 188

<210> 1974
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1974
gaattcgcgg ccgcgtcgac agtatcttta ggtcagcttc ttaatgtttc agggtttttt 60
gtttcttttt cttttttttt tttttaactt aacaaaatca aatgctttca aacagggccc 120
gactcttaat tgtaatggag atgatggaag gggagagct atttcacaga atcagccagc 180
accggcacaa ctcgag 196

<210> 1975
<211> 252
<212> DNA
<213> Homo sapiens

<400> 1975
gaattcgcgg ccgcgtcgac cattcctcat ctacactctg aagctctgaa gtctttgacc 60
atgcaagttt taaatagcat ggcagcattt attgcccttc catcaatctt gcaaagaatc 120
ttacaggatc cagtttatgg aaaaggaaaa cttggagaaa tccagggact tatcttggga 180
atgttagata cctttaacta tgaacaaacc ctgctggaaa caacaaccag ccttctaaac 240
caagaactcg ag 252

<210> 1976
<211> 174
<212> DNA
<213> Homo sapiens

<400> 1976
gaattcgcgg ccgcgtcgac ggtttgacct gagctcccct cctcacaccc tgtatgcatg 60
ttctgtctct gggtcttctg ctgttgtgtt ccgctgtcgt tttgcttgct gactccacag 120
agagtttgtg tcctggtgtc cacaaagagt gcacgtcaag gtcaggagct cgag 174

<210> 1977
<211> 191
<212> DNA
<213> Homo sapiens

<400> 1977
gaattcgcgg ccgcgtcgac atgctgttga gtgttattca tgagaatgca gggcactttc 60
tccttctcct tggagcagta ggaggcaaag tccttggaga tgatgtctgc atactggagg 120
agcacattac tgatggtctt ggcaaagcgc ctcatgtagt gccccacgat ctgagggtcg 180
ggacactcga g 191

<210> 1978
<211> 196
<212> DNA
<213> Homo sapiens

<400> 1978
gaattcgcgg ccgcgtcgac gttgcaaaga aaagatctga gatttgcttg aaaacttcca 60
gtgaggatac acattacaag gtagcccatt tcattttaat aactcttttt aaaaaattat 120
cttttcctgg attaaaatct ccctttccaa aatgcctagg ccctctaaaa caagtcttta 180
tcatctgata ctcgag 196

<210> 1979
<211> 344
<212> DNA
<213> Homo sapiens

<400> 1979
gaattcgcgg ccgcgtcgac ttcttttttc catttttttc caatttggag tcactgaaaa 60
ctaagctgtg ctttcataaa gccctgcaaa ctgaatctag acaacttcag aagaaaaata 120
acagcaacct atttacatac ataagccact ttcatacctg cctaccgatg tatggacttc 180
agagtaatgt ggcttatagc aattttccag gattgttctt ttgtttgttg ttgttctccc 240
ttcctccccc tattttgtct ttatgggaca tgacacttca caaccttcta aaaatgagtt 300
ttcctaataa ctcaggacct actcgtctag aaataaacct cgag 344

<210> 1980
<211> 616
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (32)

<220>
<221> unsure
<222> (46)

<400> 1980
gaattcgcgg ccgcgtcgac actgtttgaa gnatttaaca gtaagntaca gaagaagtac 60
cttcgagctg agacctgcag gtgtataaat atctaaaata catattgaat aggcctgatc 120
atctgaatct ccttcagacc caggaaggat ggctatgact tggattgtct tctctctttg 180
gccccttgact gtgttcatgg ggcatatagg tgggcacagt ttgttttctt gtgaacctat 240
taccttgagg atgtgccaag atttgcctta taatactacc ttcatgccta atcttctgaa 300
tcattatgac caacagacag cagctttggc aatggagcca ttccacccta tggtgaatct 360
ggattgttct cgggatttcc ggccttttct ttgtgcactc tacgctccta tttgtatgga 420
atatggacgt gtcacacttc cctgtcgtag gctgtgtcag cgggcttaca gtgagtgttc 480
gaagctcatg gagatgtttg gtgttccttg gcctgaagat atggaatgca gtaggttccc 540
agattgtgat gagccatatc ctcgacttgt ggatctgaat ttagctggag aaccaactga 600
aggagcctat ctcgag 616

<210> 1981
<211> 240
<212> DNA
<213> Homo sapiens

<400> 1981
gaattcgcgg ccgcgtcgac aaagaattca aatatgcacc tggctccctt cactattttg 60
ccctatcctt tgtgctcatt cttactgaaa tctgtcttgt cagctcagga atgggattcc 120
cccaggaagg aaagcacttt tctgttctgg gaagcccaga ctgttcactt tggggcaggg 180
acgaacatgt gcctcgtgaa tttgcttgaa aacagtcacc atcttctacc ccctctcgag 240

<210> 1982
<211> 130
<212> DNA
<213> Homo sapiens

<400> 1982
gaattcgcgg ccgcgtcgac gttacaaaat gaagactgga atatgttttc ctttttcttt 60
tctttttcttg ttttttttga gatggagttt tgctctgtca cctaggttgg catggcggcg 120
tgatctcgag 130

<210> 1983
<211> 145
<212> DNA
<213> Homo sapiens

<400> 1983
gaattcgcgg ccgcgtcgac agaaaacact ccataattgc tttccttgat tttgctgagg 60
atttggtatg attttagtaa gcaaactgtt ttttggtttt tccttaatgt ttttaatttt 120
ttttcctctt gcaacaactc tcgag 145

<210> 1984
<211> 211
<212> DNA
<213> Homo sapiens

<400> 1984
gataattttt ggcctctttt ttcccctcag agaaaataca aatctttcaa aatatattta 60
acttttctct atttctttcc ctatttaact tttctctatt tctaatatca ccactccaat 120
gaaatgtttt attatctttc atttaagatc tctcattctg attgatcttt cacctgcctt 180
tggcctttca atacgaccca ccacactcga g 211

<210> 1985
<211> 220
<212> DNA
<213> Homo sapiens

<400> 1985
gaattcgcgg ccgcgtcgac tgagccttag catgggaata acaatgatgt gtatggcatc 60
taatacttat ggaagtaacc ctatttccgt gtatatcggg tacacaattt gggggtcagt 120
aatgtttatt atttcaggat ccttgtcaat tgcagcagga attagaacta caaaaggcct 180
ggtccgaggt agtctaggaa tgaatatcac cagactcgag 220

<210> 1986
<211> 208
<212> DNA
<213> Homo sapiens

<400> 1986
gaattcgcgg ccgcgtcgac ctcatcacag caatagttgt ctaataagtg ggaaacaatc 60
taattgttca gcattagagg agagtgaagt agttcagatt cattcatata attcagttgg 120
tcatttatta ggggtattgt ttttaacaat tcaagaaaac atgtataata acagaagctg 180
gtttggtttt ttaatacgaa cactcgag 208

<210> 1987
<211> 199
<212> DNA
<213> Homo sapiens

<400> 1987
gaattcgcgg ccgcgtcgac tgagagtgat gatttcttta aaaaaaatca gtttttttct 60
ctcaaataat gttctttatt tcacgaaatc atcaatctta agcatgagca gggataaaca 120
actcctagaa ggaactcaat tcattcttcc tggattttct ctgttgttaa atcacaaaaa 180
tgatagtccc cctctcgag 199

<210> 1988
<211> 216
<212> DNA
<213> Homo sapiens

<400> 1988

gaattcgcgg ccgcgtcgac ggaagtacat tccagtcctt aattcctcca gtgtggttga 60
tagctctgtc agaataactg cagtcctaatt tttcccttca tttttaaagt gatttttttc 120
tactaaatga tttctttttat ctatttttctt tttcttgagc ctgatttatt ccctagtttg 180
ggcctttatg taactttagc tccagcacaa ctcgag 216

<210> 1989
<211> 250
<212> DNA
<213> Homo sapiens

<400> 1989
gaattcgcgg ccgcgtcgac actccatgtt tgcagctaaa cttctgactc acatgatggc 60
agccagctta ggtacacaga ttctgtttct ggcgtctgca tacgcaagtc cccaactcgc 120
tgaggagagc tgttcagcta tggctgctgt cacacattac ctgtatcttt gccagtttag 180
ctggatgctc attcagtctg tgaatttctg gtacgtgctg gtgatgaatg atgagcacac 240
aaatctcgag 250

<210> 1990
<211> 265
<212> DNA
<213> Homo sapiens

<400> 1990
gaattcgcgg ccgcgtcgac aaatatttca taattaatgt agaatgtttc taaaatgtaa 60
tactaaattt atgaacaatc tatgtttatt tcttttgaaa agaaattgtt tgaatcacat 120
tgctgcttta tgttaccttt ttcatacttt tagctacttc atgtacacga gatcttcctt 180
gattgtcact acaattggga attggtaatc tggtgcatct cgttaacact tttctcccta 240
agatttgtta cccttgaatc tcgag 265

<210> 1991
<211> 162
<212> DNA
<213> Homo sapiens

<400> 1991
gaattcgcgg ccgcgtcgac agttaattaa catacccatc accttacgta cttacctatg 60
atgagaacat ttaaaatcta ccctgttagc agttttcaag tgtactatgc attattgtta 120
attatactca caatgctgta caatagaact ccagaactcg ag 162

<210> 1992
<211> 171
<212> DNA
<213> Homo sapiens

<400> 1992
ggtgttctca tgtggcctca cccaggtctt gtgtattatt tggtaattaa tttatggatc 60
ttaaaaactg cagtattccc ccattttgtg atgagagtgt ggggctggca ggggttggtt 120
ggagggagga gagaagacag aggagcactt aaggtgcaaa gcaggctcga g 171

<210> 1993
<211> 245
<212> DNA
<213> Homo sapiens

<400> 1993
gaattcgcgg ccgcgtcgac tgagctcttt cctgcctctg agccttggca cacactgttc 60
cctctgcctg gaataacctc tccccctagc tttctcggct gttccttctt gtctcagctc 120
aaatgtctct tgtagagatg gcctccctga tcatgtcccc taacatagca cccccccctca 180
ccctatcata taactcatgt tgtttggttt cattttggct ttgtctttat agcactaaac 240
tcgag 245

<210> 1994
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1994
gaattcgcgg ccgcgtcgac aataaaagaa agcctataag aatacctata agggtaggca 60
catcaccact gagagaaaaa aaaaaatcaa gggagtttat gttaaagtga gccctattta 120
agagatagca gaagaattaa gattgagact taaaaacaaa ataattgtta tgaaaatccc 180
tttcctcgag 190

<210> 1995
<211> 190
<212> DNA
<213> Homo sapiens

<400> 1995
gaattcgcgg ccgcgtcgac gaaatatact ctaatacggt aaatcttaga tattattatc 60
ttccatctat tatttacaat ttttacaatt taccatctct ctcatatcat gagattctaa 120
gttttagacc atgttaatgt ttcttttttg ctggttcgtg ttttcaagat ttggcaaacc 180
aaatctcgag 190

<210> 1996
<211> 124
<212> DNA
<213> Homo sapiens

<400> 1996
gaattcgcgg ccgcgtcgac ctgcctcgta aaagtttttt catctccatt agtttgtaac 60
tttcctgtaa taacttgact ttgggatggt ccatttccag gtgctgtttc accagttact 120
cgag 124

<210> 1997
<211> 178
<212> DNA
<213> Homo sapiens

<400> 1997
gaattcgcgg ccgcgtcgac gagatcctgg attgagaatc tgtgttttag attctttatt 60
ttagtgtatt tttctctaaa gcatttttta gtttatttt ctcttacaaa cttattttta 120
ttttttcttg aagctctgta ttttcttcct catgaagatt tttgctgcat tactcgag 178

<210> 1998
<211> 247
<212> DNA
<213> Homo sapiens

<400> 1998
gaattcgcgg ccgcgtcgac ctgtgcttac ctttggtatg ggctcattat atatgtttgt 60
tcagaccatc ctttcctacc aaatgcagcc caaaatccat ggcaaacaag tcttctggat 120
cagactgttg ttggttatct ggtgtggagt aagtgcactt agcatgctga cttgctcatc 180
agttttgcac agtggcaatt ttgggactga tttagaacag aaactccatt ggaacccggg 240
actcgag 247

<210> 1999
<211> 228
<212> DNA
<213> Homo sapiens

<400> 1999

gaattcgcgg ccgcgtcgac attgaattta gacctgcctc gagaacacac acaggcccca 60
caccctcctt cctggctcca ctcacccaag atattgcaac ctcctcaata caccttgatg 120
actatctcag cctccacatc cttgcattgc tatttatgct gcctggtgca cctcatgctg 180
cctcacccca tcatctgcct catttctact cttactccag atctcgag 228

<210> 2000
<211> 289
<212> DNA
<213> Homo sapiens

<400> 2000
gaattcgcgg ccgcgtcgac ggggtgggca ataggtcagt gaattccagg tagtaggcca 60
catccataat tgcggcatgc tccttagtaa gcagagtggt aaatgggtac aaatagaaca 120
cagaacagaa agaatcctaa ccaagaggtt gaaggaaata agccaactaa taataatggt 180
tctttcttgg tattggggtt tattattaat attatgcttc tttgtaatat tcagtattgt 240
caagacagtc tcaagaactg aaggaaattc agatgaaata caactcgag 289

<210> 2001
<211> 191
<212> DNA
<213> Homo sapiens

<400> 2001
gaattcgcgg ccgcgtcgac tagacctgcc tctaaattgt ccaccatcaa cgaaccccct 60
ccaaggtttg ctggaaacac tgttagcctg taagtagcag atactccctc ctctgtttgg 120
tccagtaacc tgtaatgtca ctattctttt tacttcttgt tgccgctccc ctcctcaccc 180
aagctctcga g 191

<210> 2002
<211> 136
<212> DNA
<213> Homo sapiens

<400> 2002
gaattcgcgg ccgcgtcgac gaaagaaagt tctaatgtca ttttcaagat cttcaggaaa 60
acgaactaat tttagttcaa ttgctgtgtt ggtgttacat ttgtactctg ccagtttctt 120
ctccactgcc ctcgag 136

<210> 2003
<211> 179
<212> DNA
<213> Homo sapiens

<400> 2003
gaattcgcgg ccgcgtcgac atgagatttg aggtcaagga aatattttta ttatttttta 60
cgatgagaga aattgtagta cacatgtata tttatgggaa tgactcagta gaaagaccaa 120
aaatttcata tgtgagagaa ggaccaattg atgaagcgat gttcttgcgt gtgctcgag 179

<210> 2004
<211> 188
<212> DNA
<213> Homo sapiens

<400> 2004
gaattcgcgg ccgcgtcgac ctagaagcaa gctgagtttc tatttcacac atacagtatt 60
ctgctgcttc ataatatatg cacatatatc ttcatatttt tttgccaaac ctttatttct 120
tcagtcaact attatctaat gactttgaac accaacgtag tgaaatgatt ttaaagggaa 180
ctctcgag 188

<210> 2005

<211> 224
<212> DNA
<213> Homo sapiens

<400> 2005
gaattcgcgg ccgcgtcgac cacactcaca cccagaacat gtttctatta tctggactat 60
tcaggaactt agtggaattg agtgctctga ctatgcacac ttggaatggt cctgttgcag 120
acagggcagg gttgaagaag ggtttggccc gtgcagtggg gtgcccacct tcagggcaag 180
cagctgactc cttcctttcc cccaggcatg ggagctccct cgag 224

<210> 2006
<211> 199
<212> DNA
<213> Homo sapiens

<400> 2006
gaattcgcgg ccgcgtcgac gtcacctttc tgaaatggga aaaattttac ataacgtatc 60
atccccagta gggtttggag tggtgccctc aaatacactg ttatttttgt tgttgttttg 120
ttttgttttg agacggagtc tcgctctgtc acccaggctg gaatgcagcg gcatgatctc 180
ggctcaatgc aacctcgag 199

<210> 2007
<211> 335
<212> DNA
<213> Homo sapiens

<400> 2007
gaattcgcgg ccgcgtcgac cctaaaaact tagtagccgt ttttttttt aaatacacac 60
atagtgaaaa atatttttat ttaaaaatta aaatgtttta ttttaagcaa ccaaaatttc 120
tagtatatac actgcacaac ctcccaaatt tggatgtggc cactgtcatt tcctgttcca 180
cactgatttt tgcacagtac ttactttttt tcacagcaac cactaacagc caagcttctc 240
aaagatgtgg tggcattgaa aggaatgtag taaaacgatc taatgttcaa acggaactac 300
ttggacattt ttctccaaac ttagaaaacc tcgag 335

<210> 2008
<211> 201
<212> DNA
<213> Homo sapiens

<400> 2008
gaattcgcgg ccgcgtcgac ggcagtgaca agtgattgct aaagatacca tagtcttaaa 60
gttaagtcag taaacacaag atagtaatcc cagataaact ggaagctgta gagttaatac 120
tcctttactg gtacagagca gtgtgtgtaa attgtagaaa atttagaaat acataaaaag 180
atgaaaactc tactactcga g 201

<210> 2009
<211> 391
<212> DNA
<213> Homo sapiens

<400> 2009
tgtttagatg tgtatgaaat acctgtatac gttagtgaaa gctgtttact gtaacgggga 60
aaaccagatt ctttgcatct gggccctcta ctgattgtta aaggagttcc tgtcacctgc 120
tccccccacc cccgcatgcg tctgtccact tggctaactt ttaatatgtg tatttttaca 180
ttatgtatat tcttaactgg actgtctcgt ttagactgta tacatcatat ctgacattat 240
tgtaactacc gtgtgatcag taagattcct gtaagaaata ctgcttttta agaaaaaaaa 300
taacatgctg aggggtgacc tatatcccat gtgagtggtc actttattta taggatcttt 360
aaaacatttt taatgaacta agtcactcga g 391

<210> 2010

<211> 207
<212> DNA
<213> Homo sapiens

<400> 2010
gaattcgcgg ccgcgtcgac cttttatggc agtcatatga accattatct tagcatggta 60
aacctgggtt ttgttcatat tttctccaga cagaaatgca aagatcaaac tgtgcaaata 120
ttaaaaaaat gcacatgctg ttttattcaa atgcctcttt tgtacatgtt catgtttagt 180
gttttctcag aatcagcacc cctcgag 207

<210> 2011
<211> 191
<212> DNA
<213> Homo sapiens

<400> 2011
ggaatcatct tcgggcttat tcctgctagt tgttccatat ttctagattt catcttgaat 60
tttgaaaact gatttaagaa tatatttagt attattatta gtaagggaat acgcaatcca 120
gtttcaattt tattcagaag taggtcacct aattctagaa aatggttatt agtctagtgt 180
cgcttctcga g 191

<210> 2012
<211> 205
<212> DNA
<213> Homo sapiens

<400> 2012
gaattcgcgg ccgcgtcgac ccatgcccta tcagtgggaa tacccgtatt tgctgagcat 60
tttgccctct ctcttgggcc ttctctcctt tccccgcaac aacattagct acctggtgct 120
ctccatgatc agcatgggac tcttttccat cgctccactc atttatggca gcatggagat 180
gttccctgct gcacagcagc tcgag 205

<210> 2013
<211> 170
<212> DNA
<213> Homo sapiens

<400> 2013
gaattcgcgg ccgcgtcgac ctaaactata tgctaatttt aggctatttt ttatttaata 60
agtggataga accaaaccag ataactgact ctcctggaga agaagtaagt ggtctcttaa 120
taagcactgc ttggtctcag aaccttagta ctcccccaag ccaactcgag 170

<210> 2014
<211> 291
<212> DNA
<213> Homo sapiens

<400> 2014
gaattcgcgg ccgcgtcgac ctaaaggtct atcctcatat ccccaacccc tccaccccac 60
ctccatccag aggaaaggaa caaaatttct gcaacaagat tctaagcctc tccagggtag 120
gaaccagata ttattttact gtttttgct tttcaaacac caactcaaac cagatattgt 180
ttctctttaa tgtctatcac agtgttttta gtgagttttc tatttgttga aggtgtattt 240
tgtgccaata acaagaatta ccgtgttaat tcttacaata caaccctcga g 291

<210> 2015
<211> 281
<212> DNA
<213> Homo sapiens

<400> 2015

gaattcgcgg ccgcgtcgac ccaacccgac acatgctact gctgctgcta ctgctgccac 60
ccctgctctg tgggagagtg ggggctaagg aacagaagga ttacctgctg acaatgcaga 120
agtccgtgac ggtgcaggag ggcctgtgtg tctctgtgct ttgctccttc tcctaccccc 180
aaaatggctg gactgcctcc gatccagttc atggctactg gttcaggggc aggggaccat 240
gtaagccgga acattccagt ggccacaaac aacaactcga g 281

<210> 2016
<211> 237
<212> DNA
<213> Homo sapiens

<400> 2016
gaattcgcgg ccgcgtcgac aatgctaatg tgtagtttat ctgcttcaat tttgaagggt 60
aggatatata tagttatgtg tgtgtgtgtg tgtgggggg tagtgtttgt gtgtgtgtgt 120
gtgtatatat atttatatat tactagtcca ttgctgctac aacaaactac cactatgtca 180
gggcataaaa caaatttatt acactcctgt atgtcagagt atgatgcgga tctcgag 237

<210> 2017
<211> 273
<212> DNA
<213> Homo sapiens

<400> 2017
gaattcgcgg ccgcgtcgac caccactgca acatatagac ctgagtgcta ttgtattttg 60
gcttggtgtg tatgctcttc attgtgtaaa attgctgttc ttttgacaat ttaagtgatt 120
gttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaattccaat gactgtgctg 180
tggttggaga ctttatttac caagatgttt actcttcctt tccccttcca ttttgaggag 240
ctgtgtcact cctcctcccc ccaagtgctc gag 273

<210> 2018
<211> 202
<212> DNA
<213> Homo sapiens

<400> 2018
gaattcgcgg ccgcgtcgac ctaaaaactc attttcactg ctattaattt gctactttgt 60
gtcctcaata agggtattac aaatttaatt gattttgaac tcactgattt tgaacttaat 120
gaaattgttt atttcagtaa cttcactttc ttttattttc ttcaccatta aacttggtga 180
tatgaatccc aaacatctcg ag 202

<210> 2019
<211> 278
<212> DNA
<213> Homo sapiens

<400> 2019
gaattcgcgg ccgcgtcgac tacacaacaa caacaacaac aacaacagaa acaaaaacta 60
gcaacaaggc tgcaatatct acaattggga taatgagtcc tctgccctgg cttctgtctc 120
agcctcccctt cccatctcta accatctgtt tgtctctcta tcttcctgtc tttttctcag 180
catataaaca aacatgcaca ctaacaccca ggatggatat atctaagttt gctcatcaga 240
ccgaaagttt tccaatctgg catgctccag aactcgag 278

<210> 2020
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2020
gaattcgcgg ccgcgtcgac tggtttttga attatcatac agtaaaattg acttttggct 60
tggtgtagtt ctgtgaattt aagtctagac ttctgtgacc actagaacaa tcaagccgga 120

gaacagttct gtctttcccc aaaatttgct catgctgctc ctccctgctg caactccttg 180
gctcgag 187

<210> 2021
<211> 303
<212> DNA
<213> Homo sapiens

<400> 2021
gaattcgcgg ccgcgtcgac aggagctgtt actaaagttc tgagggctgc agttaaaaca 60
ttccaatttc tcccttcctt ccatctttct ttattgattg attctcaaga ttttgcacag 120
aaaactcttt gggggctaga acagcagtaa ttgcatcaca ctgttttcaa gacttcaagt 180
ttcaaaagca aatcattaaa aaaaatacag ttcctgattt gagttagata cagggacaaa 240
aaagtagcac atacttgaag gttacgtggt ctacaaatgg tggcaatatt ttccctactc 300
gag 303

<210> 2022
<211> 238
<212> DNA
<213> Homo sapiens

<400> 2022
gaattcgcgg ccgcgtcgac cattttgtca catagataat taaaagatgt gtattcatgg 60
atcaagactt aaaacattaa agatttttgc tgcttcatca gtgatattct caatgatact 120
ctacattatt tttactgtag ttgtagtgcc agttgagaat gtgacaactt ctaatacagc 180
ttggtgccag ctgccttcag ttttggaaat gcatcaacag tattacccac cactcgag 238

<210> 2023
<211> 200
<212> DNA
<213> Homo sapiens

<400> 2023
gaattcgcgg ccgcgtcgac caaatatatt aaatttccca ctgctccaaa ttctttccaa 60
ctcttggtat catgagatta catttctacc aattttatgg gtataaaatg gcatctattt 120
ttattttatt ttattttatt ttattttatt ttatttattt atttattttg agacgtagtc 180
tcactctgtc gccactcgag 200

<210> 2024
<211> 266
<212> DNA
<213> Homo sapiens

<400> 2024
gaattcgcgg ccgcgtcgac ataaataatt gcatattagg agaattggat tactgaggtt 60
tgtattgcgt attgaatata ttttgtgtta ttttagaaga taataattag caggtatttt 120
aattttatag ttaattcagc tgaatcatta agaagctcgc ctttttgtat ttttttatcc 180
tgttaacaga ctatctagaa aacatgcaaa ttttaactat taacataatc ataataaaga 240
tatcttattt attgccagca ctcgag 266

<210> 2025
<211> 462
<212> DNA
<213> Homo sapiens

<400> 2025
gaattcgcgg ccgcgtcgac cgagtattta tgctttcttg gaataaatct tgagcaaaaa 60
gggcaagctg gtttttgact gcagagagaa ttagtgttcc tgacagccaa gaagactaga 120
gctggatatg tcagatgagt ttcttagaat cattctctct cccttctgta ttgtgataga 180
ctatcactct catgaaggga aagactgttt ttgatgtcta aagtttaggc cagtgtctca 240

catatagaag ggctcaaatg ttcaatttaa taaataaggt ttttgtttag tttttttttcc 300
taattccgag aaaagacatt agactgatgg tttaaggaat cgcaaagctc tctgaaatgt 360
agtaaggatc aacatcagtg tggagaacag tctggagggt catgactcga ggcaggtcta 420
gaattcaata ttgaattcta gacctgcctg agtgagctcg ag 462

<210> 2026
<211> 312
<212> DNA
<213> Homo sapiens

<400> 2026
gaattcgcgg ccgcgtcgac acgagctcgg atccgtgtgg agcacattat ccgggaagac 60
tacctcgtgg aggccatgga gatcctggag ctgtactgtg acctgctgct ggctcggttt 120
ggccttatcc agtctatgaa ggaactagat tctggtctgg ctgaatctgt gtctacattg 180
atctgggctg ctcctcgact ccagtcagaa gtggctgagt tgaaaatagt tgctgatcag 240
ctctgtgcca agtatagcaa ggaatatggc aagctatgta ggaccaacca gattggaact 300
gtagaactcg ag 312

<210> 2027
<211> 231
<212> DNA
<213> Homo sapiens

<400> 2027
gaattcgcgg ccgcgtcgac aatatttctt attattttat aatatctata ttactaaagt 60
gttttcattt catttccata ggtcataggt tttggatctg ttaaaattgc agcattcata 120
gctatggtag gaattctgtc tattgtggct caggtgagta tcattttatc tatacttaaa 180
aaatttaaaa aatatcctga taaccatagt ttcacaggaa cccatctcga g 231

<210> 2028
<211> 191
<212> DNA
<213> Homo sapiens

<400> 2028
gaattcgcgg ccgcgtcgac atgcaggtga ggatggagca acaggaacgc tcgttcattg 60
ctggtggcaa cgcaaaatgg cacagccact gtagaagagt ttggcagttt cttacaaaat 120
taaacatact cttatcatgc attctagcaa tcatgctcct aggtatttat gcaaatgaat 180
tgtcactcga g 191

<210> 2029
<211> 669
<212> DNA
<213> Homo sapiens

<400> 2029
gaattcgcgg ccgcgtcgac gagaatgaat atgactcaag cccgggttct ggtggctgca 60
gtggtggggt tggtggctgt cctgctctac gcctccatcc acaagattga ggagggccat 120
ctggctgtgt actacagggg aggagcttta ctaactagcc ccagtggacc aggctatcat 180
atcatgttgc ctttcattac tacgttcaga tctgtgcaga caacactaca aactgatgaa 240
gttaaaaatg tgccttgtgg aacaagtggt ggggtcatga tctatattga ccgaatagaa 300
gtggttaata tgttggctcc ttatgcagtg tttgatatcg tgaggaacta tactgcagat 360
tatgacaaga ccttaatctt caataaaatc caccatgagc tgaaccagtt ctgcagtgcc 420
cacacacttc aggaagttta cattgaattg tttgatcaaa tagatgaaaa cctgaagcaa 480
gctctgcaga aagacttaaa cctcatggcc ccaggtctca ctatacaggc tgtgcgtgtt 540
acaaaaccca aaatcccaga agccataaga agaaattttg agttaatgga ggctgagaag 600
acaaaactcc ttatagctgc acagaaacaa aaggttgtgg aaaaagaagc tgagacagag 660
agcctcgag 669

<210> 2030

<211> 238
<212> DNA
<213> Homo sapiens

<400> 2030
gaattcgcgg ccgcgtcgac attgcacaat ctagcgaaac cactgaagtt tcatcattcg 60
tttctactga cttccagata atcggagtca accttctaac cttctagtct cacttcttcc 120
aaataatact gtacagactg gggagaatta ttctacccac tccctcattt catgcttgtc 180
tgccttcctc tcgaaggctc gtatgatgaa aattgcaaaa acccagctaa tactcgag 238

<210> 2031
<211> 151
<212> DNA
<213> Homo sapiens

<400> 2031
gaattcgcgg ccgcgtcgac cttgaacact tattgcactt ttatttattg ttaactgtga 60
aaagtacgtc ctttattggg tttcctttta tattcttggt ttgttaagaa gaatggtttg 120
tttttatagc aaaactgtta agctgctcga g 151

<210> 2032
<211> 242
<212> DNA
<213> Homo sapiens

<400> 2032
gaattcgcgg ccgcgtcgac atattctaat aagggatatg cctattccct gataagcaga 60
tttattaaaa acttcaatct acctaacagg tcattttgat aaggctatat tattaacgtg 120
caatattcat attcatgtct tttttctttt tctttttctt ttttctgaga ttgagttttg 180
ctctgttgcc caggctggag tgcaatggca cgatctcggc tccttgcaac ttccacctcg 240
ag 242

<210> 2033
<211> 240
<212> DNA
<213> Homo sapiens

<400> 2033
gaattcgcgg ccgcgtcgac ctagacctgc cttgatacct gtgaaccatt ggaggacttg 60
catctcctat tttggaagga atcatcccag actaaaaggc tcctaccact gatcctgaag 120
aaaaacccct tcctccttaa aaaagataag tgaaaaccta cataatcttt aacacctctc 180
cttgcccctt taatggaatc cttttactat ttcatcatgt tattaagcag catactcgag 240

<210> 2034
<211> 241
<212> DNA
<213> Homo sapiens

<400> 2034
gggagttaag ggaatgaagt tcctgtgtga ggctttgagg aaaccactgt gcaacttgag 60
atgtctgtgg ttgtggggat gttccatccc tccgttcagt tgtgaagacc tctgctctgc 120
cctcagctgc aaccagagcc tcgtcactct ggacctgggt cagaatccct tggggtctag 180
tggagtgaag atgctgtttg aaaccttgac atgttccagt ggcacccgcc aaacactcga 240
g 241

<210> 2035
<211> 138
<212> DNA
<213> Homo sapiens

<400> 2035
gaattcgcgg ccgcgtcgac ctttgcattg aatctattta ctgggttaca ttctatgtgt 60
agtttgcttt cttcattttt ttttctttta aaatgctcat gtcttattcc aagcaccttc 120
ctccaaagcc ccctcgag 138

<210> 2036
<211> 206
<212> DNA
<213> Homo sapiens

<400> 2036
gaattcgcgg ccgcgtcgac ctgaattagt aaatattagt tccttctcct tatagccata 60
tgagtttgag aaatttttgt tccgaactgt gtaaaccaga aaaagattag atgttaatac 120
ttggaagatt tttaaaatct ttttgttttg gtctgttttt gtttataaca gctgtaatga 180
gatataattc acataccagt ctcgag 206

<210> 2037
<211> 150
<212> DNA
<213> Homo sapiens

<400> 2037
gaattcgcgg ccgcgtcgac ctgcctcgag tgtgccgctt ggtcatatgc agagaattgt 60
tacccagggc cgaacatgaa catagtctcc ccagatctta ttttgttttt attgttatgc 120
tcccaggctt tagcaaagga aattctcgag 150

<210> 2038
<211> 197
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (146)

<400> 2038
gaattcgcgg ccgcgtcgac attgattcta gacctgcctc gagtgggaat tcagagctta 60
acgtgtactg cttgtgtgtg tgcgtgagtg tgtgtgtgtg tatgagagag tgtgtgttcc 120
gcctcccacc ctctccccat ctgctntggg tatttttgtt tttgtttagt tttaggttta 180
caacagagag actcgag 197

<210> 2039
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2039
gaattcgcgg ccgcgtcgac gcaatttagt gataaatgat tatacatttc aacttaacaa 60
cagataacaa aaattctcta gttatttatg gacttcgtca tctaaaaatt tggcttgctt 120
gtgtggactt cttatttaaa agtgacacag ctaatcgata tacaagcaca tcattaaaca 180
tgcagaccaa gccaacacaa tttttccatg agtcatcgct cgag 224

<210> 2040
<211> 294
<212> DNA
<213> Homo sapiens

<400> 2040
gaattcgcgg ccgcgtcgac atctgttatg gcctttctca ttcttctttt ctctgtctca 60
ggttttctac tgctctctct ctcagtctcc cgatcccttt ggccaacaca atcacaggag 120

ggctttgaag taagatgcct gcatcccgga ggagcgcatt ttccagaggc tggtgcaggg 180
caggcaagaa cacacggtgt cataggacag ccccgggcac ctccccaacg cgggctcagg 240
agaaacgaaa gacggaggag aacttccagg tctatgagga ccccacgact cgag 294

<210> 2041
<211> 236
<212> DNA
<213> Homo sapiens

<400> 2041
gaattcgcgg ccgcgtcgac cttataaaca aggagagttt ttgtgtgtgc gagatctcta 60
agccagcgtg ggagggagcg cctcaggata agttattata ttcatttcgt tggtttctct 120
cctgcccaat tcttggcaca ggcattatgt ttgaagaaac caggataagg tacactgctt 180
ttgtctgttt aatttttta gttgtttccc ttcactttca gtcttccaca ctcgag 236

<210> 2042
<211> 192
<212> DNA
<213> Homo sapiens

<400> 2042
gaattcgcgg ccgcgtcgac gattacaggc atgagccacc atgcccagcc agttttcatc 60
ttttttaaga ggaaaacaat aactaaattt tcttttacgt taaacattct tctatttctg 120
ttatccattt gtaattcaaa aaatagtgta tgttttgttc acgacagaac atcagatacc 180
aaacccctcg ag 192

<210> 2043
<211> 207
<212> DNA
<213> Homo sapiens

<400> 2043
gaattcgcgg ccgcgtcgac gattgtcttt tcaattttgg agagttttcc tgtggctaca 60
aggcaagtaa cgggttggaa aaagtctgac tgtaagcgtt ggacaccttc atagtgtagt 120
gttttagtga cttttttat acggttcttg taaattagat acgtgtagtg gtgtttcaga 180
atgtttgttt atgcactagt tctcgag 207

<210> 2044
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2044
gaattcgcgg ccgcgtcgac ctgtactgct agtaagtgac tgataacatt ataaactagt 60
tatatttttc ttatgcgtca tcagctgctg gtggtgactc tcgag 105

<210> 2045
<211> 259
<212> DNA
<213> Homo sapiens

<400> 2045
gaattcgcgg ccgcgtcgac cccataggga atccgtttta ctagcttatc ctttcagtct 60
ttctttttcc cctaaataag caaaaacgtg tcttcatttt tccctttcct gttttattta 120
cacagaaggc atcttagtca gttgtctgac catcgctcct ctagtgggct gcgtggttct 180
ctgttggaca gatgtaggga gcttatccaa ccagtaccct ctggataggc aggcgcatga 240
ttacagggcc gttctcgag 259

<210> 2046
<211> 250

<212> DNA
<213> Homo sapiens

<400> 2046
gaattcgcgg ccgcgtcgac ggagcaggcc aacgatgacg cgcgcacctt ctacatcatc 60
gagcgcgagc cgctcatcaa cacctacatc tccgtgccca aggagaacag cacgctcaac 120
tgcgccagct tcacggcggg catcgtggag gcggtgctca cacacagcgg cttccctgcc 180
aaggtcacgg cgcactggca caagggcacc acgctcatga tcaagttcga ggaggcagtc 240
atcgctcgag 250

<210> 2047
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2047
gaattcgcgg ccgcgtcgac atgccccacc tgctctccag cctcacccta actcccctcc 60
ccttcacact ttcctgttcc ctgaagatgc cactgctggc tgtatcattg tacatgctgt 120
tcttcttacc tggaataccc ttctccctcg ag 152

<210> 2048
<211> 255
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (108)

<400> 2048
gaattcgcgg ccgcgtcgac cacaaaattg ttcttccttg gagtgtcttg gctattctta 60
gccaactgtt cctccatatt acttctagaa ttagaccaac aatttatnaa tcaaacaaac 120
ccaagagcat tgaaattttg attggatttg tattgaattt atagattaat ctggtaaacc 180
atgtcatctt tacaatgttg tcttccaata catgaatatg gtacagctct tcatttactt 240
aggcctttac tcgag 255

<210> 2049
<211> 121
<212> DNA
<213> Homo sapiens

<400> 2049
gaattcgcgg ccgcgtcgac cgattgaatt ctagatctgc ctccagggat aaaccccatc 60
tttcaagctt gcttcttgct tgatgctttc tgctgctttc ttgcttttgt ttcagctcga 120
g 121

<210> 2050
<211> 258
<212> DNA
<213> Homo sapiens

<400> 2050
gaattcgcgg ccgcgtcgac gaaagggaag aattgtttta gaaagacaat atttaaaaca 60
ccgcactgcc aatatattga tcctttatag ttatttccta aaatgctgtt ttcgaaacat 120
tcctttttca ccctgttgtg tggcttagac ccatctcgta atctgttaat tggaaagagg 180
ctacagacac cagcagtgtg cgttctgcag gtacacgctg ccaaagtaat tcctgctcat 240
ccatgcccctt gtctcgag 258

<210> 2051
<211> 171

<212> DNA
<213> Homo sapiens

<400> 2051
gaattcgcgg ccgcgtcgac tgaagataaa ataaggttac tttcaatgtt tagcagagtc 60
gtattcagaa tgagggaact attaccatta ctagcaatga gccattcttc cctgagcccc 120
agacatgaac tgcaggaagg gaggggagcc ttgagtcgtg tggagctcga g 171

<210> 2052
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2052
gaattcgcgg ccgcgtcgac gggggaggta tagacaagca aggatactta attaattaat 60
atattaacga agtatagaaa agcaagtata cttaatatat taagaaatga tggctaacat 120
ggcgctcgag 130

<210> 2053
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2053
gaattcgcgg ccgcgtcgac tgcctgagga tatgggggtg ggggtagggg gtgtggagag 60
aagggttatg ccttctggag gagtggggag aaaagggaat gattagggaa aaggaacaaa 120
agtaaaatat caagaagcat ctttacaaag cagttctata gctaattcct tttaaagggg 180
aaaggaaagg taaccaaagc aggaaaacgt ttatctctgt gtcttaaaaa aaaattgtct 240
accatacata tatccaaaaa tgtgggaaaa atacttattc caggtgctcg ag 292

<210> 2054
<211> 249
<212> DNA
<213> Homo sapiens

<400> 2054
gaattcgcgg ccgcgtcgac caacaagttt agatattaat agccactcaa agccttcagc 60
ccatataaca tgaagtgaca actgagctct gcacataatg ctcaagctct ataataacca 120
acactctcag cacaagggta gacaagaaaa gaaaaatctc ctgctggcca ggaagaccac 180
aaggaggctt tctgacttgg cctgtgcttt tgatttttaa aacatttttt aaaagaggcc 240
ccactcgag 249

<210> 2055
<211> 227
<212> DNA
<213> Homo sapiens

<400> 2055
gaattcgcgg ccgcgtcgac gccaataccc cttctgtgaa tacaggttat ttcaagcttt 60
cgtcagtggc aaccactctt aggcagcagc aactggtttt ggaaatttcc ctgatgtcag 120
taccacctgg atgtggacct ttgctacctg tattaatacc agtggcctca ttttgctgta 180
tcattacaat ttggcttctt atattaatgt ttgaaaagga tctcgag 227

<210> 2056
<211> 639
<212> DNA
<213> Homo sapiens

<400> 2056
gaattcgcgg ccgcgtcgac atgaatcttg gaaacatgtc tgtgaaggaa ggcagccaca 60

gaagacacat attgtatgat tctgtttacg tgaaatgtct agaataggca aatccataga 120
gacaaaaatt agaattagtg gattactgat tgcctagggc tagaggagtt gggagaataa 180
agaaggaagg aatactaact cactggaatt tctttttgag gttataaaaa tattttcaaa 240
ttggatggtg gtaatggtta atttccacca ttataatact aaaaccattg agttatacac 300
tttaaatgag caaattgtat ggtgtgtgaa ttataggtta ataaagctgc ttaagtacat 360
atatatgtat agcaataatc atttattgga tttcagttca acagacactc ctatgagaag 420
ccctttgaga tacgccagac aagagagatg agggtctgcc cttgaaatct gaaaactgat 480
agatcagaaa tctggtagac agtaggtgat tataatgaga tgttctgtaa ctgagatgga 540
gaaaaagatg gtgtacaaat gcaaaggaga gaggtgggct agcgctggct gggactggga 600
ggcagcagga agaaggtggt atctgtgccg gccctcgag 639

<210> 2057
<211> 206
<212> DNA
<213> Homo sapiens

<400> 2057
gaattcgcgg ccgcgtcgac agacagaagt gtagtatgct gtatgaatat tttatattaa 60
aatatgaagg tttgagagca ggccattggc tactgactgt atttcccttg ctcagtacat 120
ttttgttttc cttttaccat tttatcttgc tttggaggac cttaaatgct actgaaactt 180
acctgagaac cacaggacat ctcgag 206

<210> 2058
<211> 387
<212> DNA
<213> Homo sapiens

<400> 2058
gaattcgcgg ccgcgtcgac atttgaagca ctctaaagct ccaaaagact ttagacctag 60
ttcatcttca gattatttcc atcttaacgt ttccacctct ttggccccaa aatgggcacc 120
ttttgttgcc atttaggaaa gggagaagtt tggggttttt tggtttggtt tttgtttttt 180
ttgagacagg gtctcactat gtcacccagg ccaggctgga gtacagtggg ccattatggc 240
tcactgcagc ctcaaactcc tgaactcaag cgatcctccc acctcagcct cccaggtagc 300
cgggactaca ggctcgtgcc accaggtatg gctagttgta ttttttgtag agacgaaatc 360
ccactctgtg caccggctgg tctcgag 387

<210> 2059
<211> 253
<212> DNA
<213> Homo sapiens

<400> 2059
gaattcgcgg ccgcgtcgac gttacatgta aatagcagaa taagccatgt tatttcacta 60
ttccatcctt ttgcactctt cctctctata tattatatac gtatatgtat gtgtgtatgt 120
acatacacac acacatattt ttttcctcca tgagatgtcc atctcttcct tctctgcaag 180
gctattacct actcctcaaa cctcagaaaa gaagctcaag ggacatctcc cttgggacca 240
tcctcaactc gag 253

<210> 2060
<211> 200
<212> DNA
<213> Homo sapiens

<400> 2060
gaattcgcgg ccgcgtcgac cttgtcttca ggcaggcatt tctgggatct aaactagaaa 60
tccttgaaaa caaatagtac cagccacttt gaggaatgtg cattcactat agtgggttat 120
tatggggtct ctgcctcctg gctgtgttat gcggagccca ggagtggagg agagccgtgg 180
aaatagatag ggttctcgag 200

<210> 2061

<211> 427
<212> DNA
<213> Homo sapiens

<400> 2061
gaattcggcc aaagaggcct acaggtgttt tcatttggtg atcagggctg aacagagaga 60
tctcaccatg gactttgggc tgacctggct tttcttgtg gctattttaa aaggtgtcca 120
gtgtgcggtg cagctcttgg agtctggggg aggcttggta cagcctgggg gatccctgac 180
actctcttgt gaaggctcag gcttcaactt cagcgataaa gccatgagtt gggtccggca 240
ggctccagga aaggggctgc agtgggtctc cactattagt cccagtggtg agaccacaaa 300
ctacacggag tccgtgaagg gccgcttcac catctccaga gactcgtcca ataacaccgt 360
ctatttacaa atgaagagcc tgagagtcga ggacacggcc ctatattact gttcgaagga 420
tctcgag 427

<210> 2062
<211> 156
<212> DNA
<213> Homo sapiens

<400> 2062
gaattcggcc aaagaggcct aattctagca acgttgattt accttacatt cctgctgaaa 60
actcaccaac tcgccagcaa ttccattcca agccagtaga ttctgacagc gatgatgatc 120
ccttggaggc attcatggct gaagtggagt ctcgag 156

<210> 2063
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2063
gaattcgcgg ccgcgtcgac gaagaagtta ttctgattca catttaagga ttgacattac 60
ttcaagcaaa attgggaaag aatatgaaac aaaagatatg tggcctcgag 110

<210> 2064
<211> 416
<212> DNA
<213> Homo sapiens

<400> 2064
gccctgggat tttcaggtgt tttcatttgg tgatcaggac tgaacagaga gaactcacca 60
tggagtttgg gctgagctgg ctttttcttg tggctatttt aaaaggtgtc cagtgtgaag 120
ttcagctgtt ggagtctggg ggaggcttgg tacagcctgg agggtccctg agactctcct 180
gtgcagcctc tggattcagt tttagcagct atgtcatgag ttgggtccgc caggctccag 240
ggaaggggct ggagtgggtc tcagctatta gtggtagtgg tggtggcaca tactacgcag 300
actccctgaa gggccggttc accatctcca gagacaattc caagaacacc ctgcacctgc 360
aaatggacag cctgagagcc gaggacacgg ccgtttatta ctgttgcgaa ctcgag 416

<210> 2065
<211> 516
<212> DNA
<213> Homo sapiens

<400> 2065
gaattcggcc aaagaggcct agcttgggct gatggagagg gcctacaggg ccaggccttg 60
aaggggaggg aaattgttag ctacacgacc aagagacaga agagaggaag gagtttgtac 120
ccacaactca gctttatttt atgtaagctc tttctgcaaa gggaaagtag ctctttgtac 180
caaagcaagg gcctctgaat gagagctggg agaggccaga atgggcctgt aagaggttga 240
tgtgtatgag acctgaagcc ctatgccttt gggaaggaga ggaaggacta atatttgtgt 300
ggtacaaagg atgtgcctgg catacccat atcttttaca aagacataaa tgtcttctga 360
ataaaagtat gatgatgatg atcatggtga tgaagatgag ggtgatgatg ttgatgatga 420

tgatggtgat ggtgatgatg gtagtatgat aatgctgatg gtggtgatgg tgataggagg 480
gtgatggtga tgatgatggt gataagatcg ctcgag 516

<210> 2066
<211> 472
<212> DNA
<213> Homo sapiens

<400> 2066
gaattcgcgg ccgcgtcgac cgcggccgcg tcgactattt atctcttgga tgtttattgt 60
gaggttactc agacttaggc atagaatttg cattgttgct aaagataatt aatgctttac 120
catcctgtta tttttgtgtt tacagctaga tttgtaataa tttctttaat gtcttaaaca 180
agcttgaaca aatccttaga taggaaaagt attcactttt tccaaaggaa atattaacat 240
gctaattact gatatattac ccgtaggttt tcttaatatc tcaaatgtaa actgtgaata 300
atttttctc caaaggataa atctaccaag aaactctgat atatgcaaat acttatgcat 360
attaaacttt ctgatatgac atctagagct tttgtgtaca ttttctacaa atagaaacac 420
tcagaagacc tttggttgtt aaaagatgca tcctggccag gcaatactcg ag 472

<210> 2067
<211> 254
<212> DNA
<213> Homo sapiens

<400> 2067
gaattcgcgg ccgcgtcgac cgtcgattga attctagacc tgcatcttaa atgaaatact 60
ctttttctc ttcagcattg acttggctgc cttcagcatt gataatggct gtatcagcat 120
ctggtgcatc ttcagctcct ttagcttcat ttgttaaata cgttccttta tgccttgcca 180
gatatcgacc aagcagaaag atagaacaca gcgtgacaaa tacaactaca gccactattc 240
ctccaaacct cgag 254

<210> 2068
<211> 169
<212> DNA
<213> Homo sapiens

<400> 2068
gaattcgcgg ccgcgtcgac aaaaaagcat aatgaaaaag aaagctggtc acaaagctaa 60
ctccaaacac aaagacaaag aacagacagt agtagatgtc actgagcagt taggcgattg 120
caaattagat agtcaggaga aagatgctac atgtgaactt ccgctcgag 169

<210> 2069
<211> 242
<212> DNA
<213> Homo sapiens

<400> 2069
gaattcgcgg ccgcgtcgac agttcagtgg ccatagatat tttactcagt gtcactgtag 60
cacctgtttc ttttaatctg ctcttccacc gtgagttgtt ctgactgcac ctccactctg 120
ggaaacaaag gcttagctgt acattcatgg ctcagagcat caaaacctgt gttttcatta 180
ttgcgggcag cttctgttgt ttcaacatgc caaggtttaa catcctttcc aaaatcctcg 240
ag 242

<210> 2070
<211> 386
<212> DNA
<213> Homo sapiens

<400> 2070
gaattcggcc aaagaggcct actcgacttt ctctgcacag caggtccagc atcctttgaa 60
acatgagttc ttaccagcag aagcagacct ttaccccacc acctcagctt caacagcagc 120

aggtgaaaca acccagccag cctccacctc aggaaatatt tgttcccaca accaaggagc 180
catgccactc aaaggttcca caacctggaa acacaaagat tccagagcca ggctgtacca 240
aggtccctga gccaggctgt accaaggtcc ctgagccagg ttgtaccaag gtccctgagc 300
caggatgtac caaggtccct gagccaggtt gtaccaaggt ccctgagcca ggctacacca 360
aggtccctga gccaggcagc atcgag 386

<210> 2071
<211> 144
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (55)

<220>
<221> unsure
<222> (63)

<400> 2071
gaattcggcc aaagaggcct agagagtggt ggataaccaa ttgtcaaaac ataantttc 60
ccnatattga aataatagtg ccattatata ctaaaatctc atatgcaaag aaatctattt 120
caaaaattct ggggactcct cgag 144

<210> 2072
<211> 624
<212> DNA
<213> Homo sapiens

<400> 2072
gaattcggcc aaagaggcct aagcgtaggc aacaaagcaa gactccgtct caaaaaataa 60
ataaataaat aaataaaaat aataacaata atgaagaaaa caatccggtg attattgtca 120
gcaataaaat ttcttcaatc aaccatgctt tagtcctggc agttctctat cagtgagttt 180
caatcaaaaa gtttgtttat aattttttt ttttttaaat tttgaaattt ggaaacaaca 240
tcataaatga tggttagttt tctgcagctc cctattttgg cagatagtct gttgttactc 300
ataattaatt tgaactaaaa agtagtgttg tacgatatca tgggctgtga atgtgtttgt 360
gacttgatct gagaacccac acaccactta ggatgcttct gtaggaaaat tagagtatgg 420
aactcacttg cccacgcttt ccctgtctca gtccatgttg gtaggctgca aagtctgggg 480
ctagaaggac actgaacaag acttcagcag tacatgttag tcttccagag ggaaggaata 540
taatagttga gagaataatt cctttcctct gtgactttag gcaaattctt ggctatgctg 600
ttatttattt gggccaccct cgag 624

<210> 2073
<211> 260
<212> DNA
<213> Homo sapiens

<400> 2073
gaattcgcgg ccgcgtcgac gtttgatcga agtctcattt ttgactagaa acagtaaaga 60
gcagctttat taagatcaat ggaatggttc tgaatgcctg tttctacaga aggattaaat 120
taaaattttt tcttttttt cttttttga gacagtcttg ctctatcacc caggctggag 180
tgcagtggca cgatctcggc ttactgcaat ctccacctcc cgagttcaag caattctcct 240
gcctcaacca tccactcgag 260

<210> 2074
<211> 142
<212> DNA
<213> Homo sapiens

<400> 2074

gaattcgcgg ccgcgtcgac ctgaaaatag aatgagcttg gttaagcacc tctcctttgc 60
ccttcaccct gactcctgtc actgtctcca tccccaaata aagctgaaat attttttaa 120
gttagctgcc gagaccctcg ag 142

<210> 2075
<211> 159
<212> DNA
<213> Homo sapiens

<400> 2075
gaattcggcc ttcatggcct agtattattt actcattgga ctattaggaa caccaagttt 60
ataatacatt gtctaacacg ctgtatgtat cacttaataa gtgtttctt cctcttcccc 120
atccagagca ctttctaccc tcttccccca cacctcgag 159

<210> 2076
<211> 360
<212> DNA
<213> Homo sapiens

<400> 2076
gaattcggcc aaagaggcct agttgggagg agagtaaata ccctgattcc tgctcatagg 60
aagctggacc aacccaaagg gcctgatatc ccatgaagcc cattttttcct tgttagacct 120
gtcagaatta cagcaggcct tggtgcatac actaagacaa gggtagaacc agatactgga 180
agctgagggg aggccctaag aaatagaagg gcagaattgg aagagatggg aacccaccca 240
tctctgagca taagccccat ctagtcattg tctttggcca ttttaagtct gttagcttct 300
tttaaaggtt agtgagtata gggtcgacgc aggtctagaa ttcaatcggt tctccctata 360

<210> 2077
<211> 286
<212> DNA
<213> Homo sapiens

<400> 2077
gaattcggcc ttcatggtat ttttagtaga gatggggttt caccatgttg gccagcctag 60
tctcgaactc ctgtcctcaa gcgatgcacc tgcctcggcc tcccaaactg ctgggattac 120
aggcgtgagc cactgctctc ggcctgtgcg ttttttcttt gcgggaatgc tcctcacttg 180
ttgcatttct tgcggtgttt tgcatcccga gccctttgcc gcttgcagca tccaattatc 240
tcctccagtc agcagccact tgccttccag tgtttctgga gtcgag 286

<210> 2078
<211> 326
<212> DNA
<213> Homo sapiens

<400> 2078
gaattcggcc ttcatggcct aatgctggct aataggtact taagttcatt atgctttgta 60
ttctctactt ttgtatatgt ttgaaggctt ttacaataaa agtttttaaa agtaaatgca 120
gatgctcaca cacacataaa attcaaacta aagttacaaa gaaaaaatta aaaccacacg 180
taatactacc agactgaatt cttctttcac agtatttcca gcaaatctgg aatcagaaga 240
gttgtattca aattctggtt ttgtcaataa tgagctctgt gaacttgtac ataacttctc 300
tggattgatt ctagacctgc ctcgag 326

<210> 2079
<211> 285
<212> DNA
<213> Homo sapiens

<400> 2079
gaattcggcc ttcatggcct aaaaaaaata aaaaacatat atatatatag ataggtatat 60
agatatatct atagatatat atgagtgtta tataaatata tctatagcta tgtatatgag 120

tgattttttt taaagttgca gcaccatttg ttgaaaacct atcctttctc cactgaattg 180
cctttgcacc ttattgaaaa ttagccatac atgtgtgtct cattctggat tctattctgt 240
ttcattgatc tgtttgtcta ctctgatgcc cataccacac tcgag 285

<210> 2080
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2080
gaattcggcc ttcatggatt taatattact tacagttttg atatgtgtcc aaataactgc 60
tcaggccgag gagagtgtaa gatcagtaat agcagcgata ctgttgaatg tgaatgttct 120
gaaaactgga aaggtgaagc atgtgacatt cctcactgta cagacaactg tggttttcct 180
catcgaggca tctgcaattc aagtgatgtc agaggatgct cctgcttctc agactggcag 240
ggtcctggat gttcagttcc tgtaccagct aaccagtcat tttggactcg ag 292

<210> 2081
<211> 574
<212> DNA
<213> Homo sapiens

<400> 2081
gaattcggcc aaagaggcct acatggccga agcaagtagc gccaatctag gcagcggctg 60
tgaggaaaaa aggcatgagg ggtcgtcttc ggaatctgtg ccacccggca ctaccatttc 120
gagggtgaag ctcctcgaca ccatggtgga cacttttctt cagaagctgg tcgccgccgg 180
cagctaccag agattcactg actgctataa gtgcttctac cagttgcagc ctgcgatgac 240
acagcaaatc tatgacaagt ttatagctca gttgcagaca tctatccggg aggaaatctc 300
tgacatcaaa gaggagggga acctagaagc tgtcttgaat gccttggata aaattgtgga 360
agaaggcaaa gtccgcaaag agccagcctg gcgccccagc gggatcccag agaaggatct 420
gcacagtgtt atggcaccct acttcctgca gcaacgggac accctgcggc gccatgtgca 480
gaaacaggag gccgagaacc agcagctggc agatgccgtc ctggcagggc ggaggcaggt 540
ggaggagctg cagctacagg tccaggccct cgag 574

<210> 2082
<211> 464
<212> DNA
<213> Homo sapiens

<400> 2082
gaattcggcc aaagaggcct agtaggattc catttccgtt tctaagtttt tagatattac 60
aaagtaccca tatatatgat aaacacttaa cccagatata aattttctcc tcttttaaaa 120
aactcagtta tgtttttgaa taataataaa aaatccacca aatgcggggg aaaaacacca 180
gtttaggaaa agccacgctg tgcaactttc acagataacc acatacgttg gagttgaccc 240
ttcacatttc ttttttttcca aaattagagc aaagagtcag cttaaacaaa aaaaaaaccc 300
tgaaatttac aacatggtga ttagtttaaa aaagaaacga gaagggctct gcgagggaga 360
cgccacaaac caagcttgga aagcaaaatc atttttgttt ctctttggca acaacaataa 420
cgaggaatct ttttagtaaa atgaagctaa agcttctcct cgag 464

<210> 2083
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2083
gaattcgcgg ccgcgtcgac caaaagtttg gagtgaccag caagaggcca atagatgtgg 60
gggtggggaa gaatattctc attcctgtgg tatgttgcag ttccggcatg ttcagaacaa 120
cctgatgaga aattctacaa cagaaaaaat cgaaccaaga gactcgag 168

<210> 2084
<211> 547

<212> DNA
<213> Homo sapiens

<400> 2084
gaattcggcc aaagaggcct aaggttaaga agatgaccca ggttcatgtt gtgacagttg 60
ggattagaac ctaggcagcc tggtccagag tatgtgctct taacaactac agtttgatat 120
catcctttag tttttttttg tcattcagaa cggtttactt ttgcatatag tattatctat 180
tacagtagtt aagacaatgc agtctcatct aaaccctaac tcatttaatc ctcaagacaa 240
ccatgtggga tagatgtgag aattttatag atgaagtaac aggctcagag aaatagtcgt 300
ctagtcacac aactagtaag tgactgggat tcaaatcaga taggcaccaa aagctcaagc 360
tctttttttga accatttcaa ttcctttttt tgttgttgtt ggagacggag tctcactgtg 420
ttacccaggc tggagtgcag tggcgcgatc tcagctcact gcaagctctg ccttctgggt 480
tcacgccatt ctcctgcctc agcctcctga gtagctggga ctacaggcgc ccaccccccac 540
cctcgag 547

<210> 2085
<211> 488
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (67)

<400> 2085
gaattcggcc aaagaggcct agaattatat atccatatat atatatatat atatatatgg 60
taaacangca cacacaattt tatccaatgc aaacaaatgt agagcatcag ttacaaaacc 120
ctcgaatagc ttgagagccc cacgggctct gccacacccg tgacttcatc cacactgacg 180
tcacccgcgg gggctccccc tgcacatttg cacacgatcc ggagagccga aggccgcgtg 240
cttcctgtca catgggctgt aatcatttgt agtttccaaa gacacgtctg catttgaatt 300
tctagatttt cgaggtaagg agtttttttt taattggttg tttggaaaat cacatcatgc 360
ctagaatctg aaattgaatt agcaagaacc gactgtttgc attttccata tatcctttta 420
tctgctcttt ttaaattgtt aattctaata atttcaaaat gcattcactg aagaaatgga 480
cactcgag 488

<210> 2086
<211> 513
<212> DNA
<213> Homo sapiens

<400> 2086
gaattcgcgg ccgcgtcgac ctcgagcccg gaccaaacac acaggaacca ggagtggacc 60
tgctggggct ggaggattat gaaataggaa gcagggagct cagatacctc tggtggcctc 120
caactgcagg acaactctca gaattgtcaa actgaaccct taagggagtg tcacccaaaa 180
agcccacata ggaagtcgac acccacaaaa ataaatattg caaacaaaag ttctcacata 240
cacttcacac tcattcatac ttttcctctg agaaccgaga aagcctggct ccaaagagtc 300
tcagattctc atgaaaagta gagatcttag acacagcttg ttcaacgaca ggggtcatac 360
gcctgggtca agacaatcaa tttgccttgt caagcaatac caaaataatc atctggcttg 420
ttacaaaagt atctccaggc tccaagggaa gcagaagggg cccggcagcc tgcacagcct 480
aaaccgtcga ttgaattcta gacctgcctc gag 513

<210> 2087
<211> 315
<212> DNA
<213> Homo sapiens

<400> 2087
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctcgagccgt 60
gcagaatata ttatcatggt aaatacagtt acaaggctgc ttctatttta tttatttttt 120
gagacggagt ctcactctgt tgcccaggct ggagtgcagt ggtgcgatct tggctcactg 180

caacctccgc ctcctgggtt caagcaattc tcctgcctca gcctcccaaa gtgctgggat 240
tacaggcgtg agccactgcg ctcagcagta ttgtcatttt ctaatatttc tatttactgt 300
tggaggagcc tcgag 315

<210> 2088
<211> 501
<212> DNA
<213> Homo sapiens

<400> 2088
gaattcagcc aaagaggcct aattgtgatt taatgtaaat aaaggtttgt atagtacttt 60
tgtagttctt aagtatgaag aaatgggtaa actttttatt ttgttagaaa ctgttatatt 120
ttgagtgtaa tatttatggt ttatagcaaa atgaatgtgc ttattgttga atgcatgtat 180
ttagaagcct ttactcagcc cctgtgttct gtgctaggag cttgagctct acaggtaagg 240
cagagctacc ggtgaatgaa aggaaatcat gtcagtgaaa aatcatggtg gaaagcccct 300
ggcatcacat gtgcatgctg taggcaggac ctgagctgcc tccgctgcag gttcagatgc 360
accgctgcag ctgtccttca gttagttcac agggctgcaa gaggaggaca catccctcca 420
gaaaacagcc tgagccggga actggctgtg ctaaagagca ctgctatcaa gttgaggaga 480
gagggcttcc gtgcactcga g 501

<210> 2089
<211> 465
<212> DNA
<213> Homo sapiens

<400> 2089
gaattcggcc aaagaggcct agaaccggtg ccagcactct gcgaagtacc caagaatccc 60
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tctcaagaat attaatttag tttttcccat ttaattttta gaaaaaataa aggaagaaaa 180
tagcctttta atgtctgtgt gcttggcact ttccatgtta cttgtttcca tttgtagaat 240
aaccctgtga tacggctgtt aactattagt tccccttttg gaagatgagg aaattgaggc 300
tcttccttca gtagaacctg aagaatgagt tcttcatact tggctaatgg agataagtgt 360
gtgttggggg aggcattcca ggtcagaggc tatccagaag ggcaaactaa gaaggaaagc 420
tgggcctgcg aaaaacacac gcggaaccgc agcagcccac tcgag 465

<210> 2090
<211> 273
<212> DNA
<213> Homo sapiens

<400> 2090
gaattcgcgg ccgcgtcgac aaataatatt tgcagtcaaa tggtttttct tgctgtaagt 60
cctgttgtag ctatgtttag ggtagtggtt ctcatctacc ttggagtgca taagacttac 120
ctagcaggct tgtttaaaaa gttcagattc ctagctttgt acccagggat tgcctcaggt 180
ggtatgggct gtggtcctgg agtcatcact tttataaata gtggttcaga gaccacagag 240
agagactgct tcatcgaatt ggaagtactc gag 273

<210> 2091
<211> 160
<212> DNA
<213> Homo sapiens

<400> 2091
gaattcgcgg ccgcgtcgac cacaagaaag acgtggtcct gacagacaga caatcctatt 60
ccctaccaaa atgaagatgc tgctgctgct gctgtgtttg ggactgaccc tagtctgtgt 120
ccatgcagaa gaagctagtt ctacgggaag gaatctcgag 160

<210> 2092
<211> 293
<212> DNA

<213> Homo sapiens

<400> 2092
gaattcgcgg ccgcgtcgac gagattaaga aatacacaac gctgtcctat cgagcaccag 60
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gatgtttgtt gtataaatta tgctacttca ctttgccatt tggggaaagt caggtggcaa 180
tttgtgatgg aaacttcaca attcctgata attctcgata ttctcaagac atgcactgcc 240
taattaggta tatgttggaa ccagaccctg acaaaaggcc ggaatgtctc gag 293

<210> 2093
<211> 262
<212> DNA
<213> Homo sapiens

<400> 2093
gaattcgcgg ccgcgtcgac ccaaccacca agagaactat ttaccctgtt tgtagtgtac 60
acaacctttt cttttgtaag tcatatttac ctagattttg ttcaagaaaa tctgggtccc 120
acttagctgt tttagaaact agtacagaca gagactctcc tgaggaaatt agagctttta 180
tgattagaaa catgcttgtc taaaaatgag ggtcttagaa atcacaacat tgacccttat 240
gatgttgccc cctaagctcg ag 262

<210> 2094
<211> 197
<212> DNA
<213> Homo sapiens

<400> 2094
gaattcgcgg ccgcgtcgac cttacattat cttcttgatt atttttcttt aagatgcaag 60
tccatggatt ctattctgtt aggtattttg ctttctttcc tttttatttt ttagagacaa 120
ggactcactg tgttgcccag gctggtattg aactcctggg ctcaagtggt cttctcactt 180
cagcctcccg cctcgag 197

<210> 2095
<211> 190
<212> DNA
<213> Homo sapiens

<400> 2095
gaattcgcgg ccgcgtcgac aaaattctca ggctttacag caagcaaact tcactatgat 60
ttttacaatt ctgattctgt atcccctggg ggttatccca gttgcttctt taggatgggg 120
tttattacgt tgtacatata tcccgatgtg tctgtgtgaa tctttgtctt ttttggggga 180
ggggctcgag 190

<210> 2096
<211> 222
<212> DNA
<213> Homo sapiens

<400> 2096
gaattcgcgg ccgcgtcgac ggatatagaa ccttggacat ccattgcatg aagtattcca 60
ttcatgaagg acagactgtt caagttgatg accactactg tggtgaccag cttaaacctc 120
ctacccaaga actatgccat ggtaactgtg tcttcacaag atggcattat tcagaatggt 180
ctcagtgttc caggagttgt ggaggagggg aaaggtctcg ag 222

<210> 2097
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2097

gaattcgcgg ccgcgtcgac tgaaggattt tggactcttg tgaatgggtg actggacttg 60
gctttacaga gttgggtgct tttttctctc tgcaattacc tgtcatagca ttttgtgctc 120
accacgaagg atggtctctg ccttctcttg tcggtgtatg ccatctgaac ctaggaacta 180
cctcgag 187

<210> 2098
<211> 235
<212> DNA
<213> Homo sapiens

<400> 2098
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catgattcat ttcctgacct cttttctgct gcactctttg tccttctacc cattcattcc 120
ctctttgcta tcccttgaac atgtcaggca tgctcctgcc ttggtgagtg gtggctttag 180
ctcttctgtt tgtaacactc ttgccacagc taaccccttta actctcccac tcgag 235

<210> 2099
<211> 199
<212> DNA
<213> Homo sapiens

<400> 2099
gaattcgcgg ccgcgtcgac tatatatata tatttgtatg tatacatata tacatcctct 60
atttgacagg ggaagaagag ggtgtctggc atttattagg gacctaaata agttcagaat 120
attatgttta atctccttga ctacctattt agttacgtat ctctcccact ttgctgatga 180
gaaaaatgag gctctcgag 199

<210> 2100
<211> 211
<212> DNA
<213> Homo sapiens

<400> 2100
gaattcgcgg ccgcgtcgac acaagatccc gaaggacagc atgacgcttc tgccctgctt 60
ctacttcgtg gagctgccca tagtggcttc ttccatcgta tccttgtact tcctggagct 120
gaccgacctc ttcaagccgg ccaaggtggg cttccagtgc tatgaccgca ctctctccat 180
gccctacgtg gagaccaacg aggagctcga g 211

<210> 2101
<211> 223
<212> DNA
<213> Homo sapiens

<400> 2101
gaattcgcgg ccgcgtcgac tgaaacattt ttgatacata acagacctca gtctttttta 60
aaaattaata tattttcagg cgtatttttg tacagtgaaa agggaacatt cttgctgtgt 120
tttttcagta agactttcag gcacttcttc ccttttgatt tcttttttt cctctgtttt 180
ttagcatgca agtatgttgg tacgttatgt cctggttctc gag 223

<210> 2102
<211> 256
<212> DNA
<213> Homo sapiens

<400> 2102
gaattcgcgg ccgcgtcgac cataaatttt cttcacccta aatattccgt tttgatagtg 60
aagattggtt tcctgaactt tcgattcaaa ctagaaatcc actatcattt atttatttat 120
tttttatttt ttgagacaga ggcttgctct gtcgcccagg ctggagtgtg ttggtgcgat 180
ccctcctagc cctttcctgt ccgctttgct cttgttctca tatctccagc catctctggc 240
tcacaccgac ctcgag 256

<210> 2103
<211> 286
<212> DNA
<213> Homo sapiens

<400> 2103
gaattcgcgg ccgcgtcgac aaatgaagtt cgttctgctg ctttccctca ttgggttctg 60
ctgggctcaa tatgacccac atacttcaga tgggaggact gctattgtcc acctgttcga 120
gtggcgctgg gttgatattg ccaaggaatg tgagcgatac ttagctccta agggatttgg 180
aggggtgcag gtctctccac ccaatgaaaa cgttgtagtt cataacccat caagaccttg 240
gtgggaaaga taccaaccaa tcagctataa aatctgcaca ctcgag 286

<210> 2104
<211> 238
<212> DNA
<213> Homo sapiens

<400> 2104
gaattcgcgg ccgcgtcgac gaaggcaagc ggtgattgtt tgtagacggc gctttgtcat 60
gggacctgtg cggttgggaa tattgctttt ccttttttg gccgtgcacg aggcttgggc 120
tgggatgttg aaggaggagg acgatgacac agaacgcttg cccagcaaat gcgaagtgtg 180
taagctgctg agcacagagc tacaggcgga actgagtcgc accgatcaat ctctcgag 238

<210> 2105
<211> 289
<212> DNA
<213> Homo sapiens

<400> 2105
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actgggtttc cactcaatgg ttatacgagc actaggagga attctagctc caatatattt 120
tggggctctg attgatacaa cgtgtataaa gtggtccacc aacaactgtg gcacacgtgg 180
gtcatgtagg acatataatt ccacatcatt ttcctcagat tccagttcag aaatgagcat 240
tctcttcacc atcgcacact cagcaaaatc tgattcccct gagctcgag 289

<210> 2106
<211> 231
<212> DNA
<213> Homo sapiens

<400> 2106
gaattcgcgg ccgcgtcgac cgattgatta ttcaaccagg atacctaatt caagaactcc 60
agaaatcagg agacggagac attttgtcag ttttgcaaca ttggaccaaa tacaatgaag 120
tattcttgct gtgctctggt tttggctgtc ctgggcacag aattgctggg aagcctctgt 180
tcgactgtca gatccccgag gttcagagga cggatacagc aggaactcga g 231

<210> 2107
<211> 212
<212> DNA
<213> Homo sapiens

<400> 2107
gaattcgcgg ccgcgtcgac cgtcgattga attctagtgt tgtctcctag atgttctatt 60
cgaggtataa ttatctattc ataattttgg ttcttctttc tagagagggt gggtgtctga 120
tgtctctagt cagccatcct gaaccagaat ccccaccata ttttaaatcc ctgcttgttg 180
ccctggtatt tgacatcccc aaatcactcg ag 212

<210> 2108
<211> 231
<212> DNA

<213> Homo sapiens

<400> 2108
gaattcgcgg ccgcgtcgac ctctgaatca caccacattc tgtctttttc cacacaactc 60
agtataaaac tcctgaagta cgtggttatt acgttgcaag aaaacatgag ccacagtcat 120
tcttccaaca ttctcttgac taatgtaaaa ttgacgtttg gtgctctgtt tctgtgcctt 180
tgtgcctatg cactaccttt ccatttcagt gctgaatcac ggacactcga g 231

<210> 2109
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2109
gaattcgcgg ccgcgtcgac agaaattagg attaccgaaa atactgaaga aagactacct 60
ctgattggac tcttctcaag gaattaataa ttcaagaact aaggaaagaa aaaagtgatt 120
atatgaaaat actgaagttg atcgtagcag ctgaaggcat tctcgag 167

<210> 2110
<211> 300
<212> DNA
<213> Homo sapiens

<400> 2110
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catcaaatgt tattatatag ttcatgggac cacccagaga tccagagaat cagatttgaa 120
ggctacacag tcaagagttt tgccaggact gtgctggtgg gaccactctt gcactggctg 180
tgctggacgt ttgactttcc tattaggagt tctgaaacag ctccctctgc agggcagatg 240
gctttcaccc aggtcatgat aaaatccgcc tggcacctgc ctcctcacag tcacctcgag 300

<210> 2111
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2111
gaattccggc cgcgtcgaca gttaattgac ttatgtcatt tggagcaatg aaactattaa 60
caccaggtat attcagttcc tgcccttacc tatattttct tatcttggaa ggggattgct 120
gtccctcacc atttatctca cagcaactcg ag 152

<210> 2112
<211> 209
<212> DNA
<213> Homo sapiens

<400> 2112
gaattcgcgg ccgcgtcgac cagctttgtg aagtccctgc tctctgtggg tctatgagtc 60
agcagcaaca ttggcctaac ctccgtccca gcctcctggc tcaccacatg tgtacagtgc 120
tgtttgcagt tgtactcatt atccatccat ctctctgcca tccccaagca tcgctgggtg 180
taaaacgcaa actccccacc gacctcgag 209

<210> 2113
<211> 265
<212> DNA
<213> Homo sapiens

<400> 2113
gaattcgcgg ccgcgtcgac cctagggcct aaagatgctg aggtctgtat ggaattttct 60
gaaacgccac aaaaagaaat gcatcttcct gggcacggtc cttggaggag tatatattct 120
ggggaaatat ggacagaaga aaatcagaga aatacaggaa agggaggctg cagaatacat 180

tgcccaagca cgacgacaat atcattttga aagtaaccag aggacttgca atatgacagt 240
gctgtccatg cttccaacac tcgag 265

<210> 2114
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2114
ggtctactac ttcatcatgg cttgtgacca atacagctgc gccctgaccg gccctgtggt 60
ggacatcgtc accggacatg ctcggctctc ggacatctgg gccaagactc cacctataac 120
gaggaaagcc gcccagctct ataccttgtg ggtcaccttc caggtgcttc tgtacacgtc 180
tctccctgac ttctgccata agtttctacc cggctacgta ggaggcatcc aggagggggc 240
cgtgactcct gcaggggttg tgaacaagta tcagatcaac ggtcctctcg ag 292

<210> 2115
<211> 145
<212> DNA
<213> Homo sapiens

<400> 2115
gaattcgcgg ccgcgtcgac caataaagtt caagaaaaaa gaggtgctgt ctatgaacga 60
gtaaccacaa ttaatcaaga aatccaaaaa attaaacttg gaattcaaca actaaaagat 120
gctgctgaaa gggagggtac tcgag 145

<210> 2116
<211> 437
<212> DNA
<213> Homo sapiens

<400> 2116
gaattcgcgg ccgcgtcgac gcttcattga aaagtacctc tactctggct atgctgaact 60
ttggtcaaag tgctattttc agtgtcggtt taacagctat aatggtgctc gccagtcagg 120
gaattgtggc aggtaccctt actgttggag atctagtaat ggtgaatgga ctgctttttc 180
agctttcatt acccctgaac tttctgggaa ctgtatatag agagactaga caagcactca 240
tagatatgaa caccttgttt actctactca aggtagacac ccaaattaaa gacaaagtga 300
tggcatctcc ccttcagatc acaccacaga cagctaccgt ggcctttgat aatgtgcatt 360
ttgaatacat tgagggccag aaagtcctta gtggaatatc ctttgaagtc cctgcaggaa 420
agaaaggggc gctcgag 437

<210> 2117
<211> 249
<212> DNA
<213> Homo sapiens

<400> 2117
gaattcgcgg ccgcgtcgac gcatactcag ctttttactt agtgtcagtt gaggcatact 60
ctcaaaagtt ttttccccta aaatatcttt caagttatta ctggtatttg aaatttcaag 120
tttagaaatt catttctttt taactcaaag tgcaaatttc atataatgat tatgatggtt 180
ttagtgtcca tatttttgtg gcttcactta tcatctcttt cagcagtagc tacccacagt 240
caactcgag 249

<210> 2118
<211> 211
<212> DNA
<213> Homo sapiens

<400> 2118
gaattcgcgg ccgcgtcgac gatccgtgcg tgaagtaggc atatatcact aagctgtggc 60
tggaattgat taggaagcat ttggtagaag gactgaacaa ctgttgggat atatatatat 120

atatataatt ttttttttt aaattcctgg tggatactgt agaagaagcc catatcacat 180
gtggatgtcg agacttcacg ggctactcga g 211

<210> 2119
<211> 318
<212> DNA
<213> Homo sapiens

<400> 2119
gaattcgcgg ccgcgtcgac ctctgcggca gagtccttag tggaggggtt tacctggaac 60
attagtagtt accacagaat acggaagagc aggtgactgt gctgtgcagc tctctaaatg 120
ggaattctca ggtaggaagc aacagcttca gaaagagctc aaaataaatt ggaaatgtga 180
atcgcagctg tgggttttac caccgtctgt ctcagagtcc caggaccttg agtgtcatta 240
gttactttat tgaaggtttt agacccatag cagctttgtc tctgtcacat cagcaatttc 300
agaaccaaat cgctcgag 318

<210> 2120
<211> 401
<212> DNA
<213> Homo sapiens

<400> 2120
gaattcgcgg ccgcgtcgac cgttattggc aaatacatat aaataaacat ataaccggaa 60
cacgtttttc ccctttatcc aatggaaata cgatcaagca tcactcttag cagaagacta 120
ccagacactt gtagggacac gaaaagtgat aataaaaaca atttatttat tgaatgcttg 180
ctatagacca gatgctcttc taagcacttt gtaattattt tatcttgaaa gcagtcctgt 240
atttataatc attacctctt cttacagatg tggaagacgt gactcagttt cctgattacc 300
cagggtcaca taacatgtgt ggagaaggca ggatttacca cctcagtccg cagttcatgc 360
tcttaaccat aatgctgtac tcctcaaacc tgccactcga g 401

<210> 2121
<211> 302
<212> DNA
<213> Homo sapiens

<400> 2121
gaattcgcgg ccgcgtcgac ggggtaggtg ggcggcacag ctggggactg agggtgctgg 60
ttgctgtgga caggcttgga gccgtttttg gctggagact ggctgacttc actgtctgtg 120
gaacgtcccc tcttcttatc atcttcagag ttttccgtgg tacagttggc tgggctgggc 180
gggatgggag agctggaggt ggttgaggtg ggcgtgctgc tggactggtt gaagatctca 240
tcctccatgt ggctgtggct gggggggggag gtggcgacca gcgcctgtgg aatgtcctcg 300
ag 302

<210> 2122
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2122
gaattcgcgg ccgcgtcgac ctttgtggca ttctgaaata ggattcatga tgatgcctgt 60
tgatcttagg gacactacct cacctgccag tatctttggg gctgtgtcct tcaaggacat 120
gtccccagac tgctgtgcag tgtcattttt tgtgtttggt ttggtggtgg cttcttcccc 180
cctcgag 187

<210> 2123
<211> 195
<212> DNA
<213> Homo sapiens

<400> 2123

gaattcgcgg ccgcgtcgac attgaattct agacctgcct cgagggccat tctcctcctg 60
atgttgttcg ctttattatt tcatttattg tgttttttcg ggaatccgga tctacacggg 120
acaccaaaac tggttgcaca gcccgtaaca gtctgccaat cagagggact tgtgcattct 180
caggttctcc ctata 195

<210> 2124
<211> 358
<212> DNA
<213> Homo sapiens

<400> 2124
gaattcgcgg ccgcgtcgac aatacctcca aaatacccct gacatttgtc ccgttgccat 60
ttcctttttc cagtcttagt caccagttac ctgttccact actaacaggt tgccttactt 120
tctactttca tttgttcaat caattttcta ccctgtaccc ataatactcc taaaacacag 180
gtctgatcca gtgaagcctg acagaaaagc ttctctttcc tcattgcaca tagaataaag 240
cctcaatttt tatatttttc aagggacttt gcaatcttaa ccagttctac ttgttcattc 300
tatctcctac cttgccatgc acctcatatt tttgtcattt cttctgctac cccctccg 358

<210> 2125
<211> 226
<212> DNA
<213> Homo sapiens

<400> 2125
gaattcgcgg ccgcgtcgac tgtttatttg ccacagatca aaggttcaca aagtatatca 60
aatttacatc tacttggggt accttgatag attattattg tttttctttt atctttccct 120
tcaggaattt ggaaactcgt tgtcactttt tttaatttta aaaatactaa attgtaatag 180
ttttcttttg ccaaatatgt acgcacacat ttgggttctc cctata 226

<210> 2126
<211> 183
<212> DNA
<213> Homo sapiens

<400> 2126
gaattcgcgg ccgcgtcgac gtgaatttaa ggttgtgatt tttgtttttg actttttaaa 60
gactttattt atttagagca gctttaggtt cacagcaata ttgagaggat ggtacagaga 120
tatctcatat acttcctact cccacacata cacgaggctg catttttagt aggggccctc 180
gag 183

<210> 2127
<211> 343
<212> DNA
<213> Homo sapiens

<400> 2127
gaattcgcgg ccgcgtcgac accagttgct acccaagcat tgtgccaaaa ctatcagtca 60
agcagtgaat aagaaatcaa aaaagcagac tggtaagaaa ggggaacctg aaagggagaa 120
accaggtgtt gagagcatga ggaaaaacag gctggttgtg accaaccttg ataaattgca 180
cactgcactt tctgagttat gcttctctat aaattatgta ccaaacatgg tggtatggga 240
acataccttt accccacgag aatatttgac ttctcatctg gaaatacgct ttaccaagtc 300
aattgttggg atgactatgt ataatcaagc cacacacctc gag 343

<210> 2128
<211> 242
<212> DNA
<213> Homo sapiens

<400> 2128
gaattcgcgg ccgcgtcgac gctgtattca tcttccatat agaaactcta taaccattaa 60

gcaataactc cctcattctc ccttcacttt cagctcctgg taaattctgt tcaacttcct 120
gtatgaattt gcctattcta gatatttcat gtaaattgaa tcatacaata tttgtccttt 180
tgtgtcttct tatttcattt agcataatgt tggtgttcat ccatattgcg gcaatcctcg 240
ag 242

<210> 2129
<211> 142
<212> DNA
<213> Homo sapiens

<400> 2129
gaattcgcgg ccgcgtcgac cgaaaaatta tttattcaag tgaaagggaa gaaaagtcgt 60
catcaaaaag aggattccct ttcttggagt aatagtgctt atttatcctt ggatgatgat 120
gctttcacgg ctcaccctcg ag 142

<210> 2130
<211> 298
<212> DNA
<213> Homo sapiens

<400> 2130
gaattcgcgg ccgcgtcgac ctgaataatc tcagttaacc tgtctttaag ttcactgact 60
attctgcctg cttgaatctg ctattgaaat cctctagtga ttttttttatt aaaaaaaaaa 120
aatggagaca cagaagctgg gcagcctcca tggggcttcc acacactggg gcttgcttcc 180
ggcccccagc gactccaagg ggatgagtga atttaactgg caaggagcaa tctgctgtca 240
ccctgggcct ctggaatcct ggcaggaaga ggccccacga ccaccacgga cactcgag 298

<210> 2131
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2131
ggtctcaaac tcctgggctc aaatgatctg cccaccttgg cctctcacag tgctgttatt 60
acaggctaca gccaccgcac ctgacctccc tagcacattt aaattttggg atgtttctag 120
tgataatctc agtattgtat atttgttttg tttttttgtg gggaaaaggg aaacaggcgt 180
gctcgag 187

<210> 2132
<211> 376
<212> DNA
<213> Homo sapiens

<400> 2132
gaattcgcgg ccgcgtcgac cccatcagct gctctgaagc tccatggtgc ccagaatctt 60
cgctcctgct tatgtgtcag tctgtctcct cctcttgtgt ccaagggaag tcatcgctcc 120
cgctggctca gaaccatggc tgtgccagcc ggcacccagg tgtggagaca agatctacaa 180
ccccttggag cagtgctgtt acaatgacgc catcgtgtcc ctgagcgaga cccgccaatg 240
tggtcccccc tgcaccttct ggccctgctt tgagctctgc tgtcttgatt cctttggcct 300
cacaaacgat tttgttgtga agctgaaggt tcagggtgtg aattcccagt gccactcatc 360
tcccaactca ctcgag 376

<210> 2133
<211> 390
<212> DNA
<213> Homo sapiens

<400> 2133
gaattcgcgg ccgcgtcgac caacaagatc tccagacctt acaagatggc cgccacccag 60
actgggacct gcctcatggt ggcagccttg tgctttgttc tggtgctggg ctcccctcgtg 120

ccctgccttc ccgagttctc ctccggctcc cagactgtga aggaagaccc cctggccgca 180
gacggcgtct acacggccag ccagatgccc tcccgaagcc tcctattcta cgatgacggg 240
gcaggcttat gggaagatgg ccgcagcacc ctgctgccca tggagccccc agatggctgg 300
gaaatcaacc ccgggggcc ggcagagcag cggccccggg accacctgca gcatgatcac 360
ctggacagca cccacgagac cacgctcgag 390

<210> 2134
<211> 235
<212> DNA
<213> Homo sapiens

<400> 2134
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ttatttgtta gacattccta ggtacttgat atttttgatg ctgttgtaaa tgatgccttt 120
aacatttatt tcactttgtt tgttgctgac atatagaaat aaaactggct gggcacggtg 180
gctcacacct gtaatcccag cacttcggga ggccaaggcg gggcaaatcc tcgag 235

<210> 2135
<211> 225
<212> DNA
<213> Homo sapiens

<400> 2135
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cagggtccct ggaatggcgg agactctgtc aggcctaggt gattctggag cggcgggcgc 120
ggcggctctg agctccgcct cgtcagagac cgggacgcgg cgcctcagcg acctgcgagt 180
gatcgatctg cgggcggagc tgaggaaacg gaatgtggac tcgag 225

<210> 2136
<211> 206
<212> DNA
<213> Homo sapiens

<400> 2136
gaattcgcgg ccgcgtcgac gaaagttctt agaaagtggg tatgtggctg gcctcagata 60
aggataaatt gctgagaaga aggagttggg tttttttgt gttttttgt ttcttgtttt 120
tgagacgggg tcttgctctg tctcccaggc tggagtgcag tggtgcgatc acagctcact 180
gcagcctcaa cctcccaata ctcgag 206

<210> 2137
<211> 156
<212> DNA
<213> Homo sapiens

<400> 2137
gaattcgcgg ccgcgtcgac ccactgctca gccagaatgg tactcccaat ttgtttaatg 60
ttttcgctgc tagttgcagt aattcctttg cactcttccg aaaggccaca gcttccacag 120
tgttatcatc aaggtactgc tgaaagaatg ctcgag 156

<210> 2138
<211> 441
<212> DNA
<213> Homo sapiens

<400> 2138
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ctactagaac aagagaaaac gtttttcact cttttagtat tactaggcta tttgtcatgt 180
aaagtgactt gtgaatcagg agactgtaga cagcaagaat tcagggatcg gtctggaaac 240
tgtgttccct gcaaccagtg tgggccaggc atggagttgt ctaaggaatg tggcttcggc 300

tatggggagg atgcacagtg tgtgacgtgc cggctgcaca ggttcaagga ggactggggc 360
ttccagaaat gcaagccctg tctggactgc gcagtggtga accgctttca gaaggcaaat 420
tgttcagcca ccatcctcga g 441

<210> 2139
<211> 112
<212> DNA
<213> Homo sapiens

<400> 2139
gaattcggcc aaagaggcca ttcaaaatat gaggaattta ctactttatg tcctgctctc 60
taaactacat cctgaactcg acgtcctgag gtataataaa acagagctcg ag 112

<210> 2140
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2140
gaattcggcc aaagaggcca ttcaaaaaag taggtaaaaa aagaaaaggg tagataatct 60
ttcgtatgca aacttttccc ttatattttg tctttctttc ctttttgact ttagtagcat 120
cgctcgag 128

<210> 2141
<211> 190
<212> DNA
<213> Homo sapiens

<400> 2141
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agcacaaatg ttttggttaa gtatcttaaa actgatggat ggtatggctg gggcagcatg 120
gctcacgcct gtaatcccag cactttggga ggccaaggcg ggtgaaccac ctgaggtcag 180
gaatctcgag 190

<210> 2142
<211> 119
<212> DNA
<213> Homo sapiens

<400> 2142
gaattcggcc aaagaggcca ttcaaacctc agaaggccaa agaggccatt caaacctcag 60
aaggccaaag aggccattca aacctcagaa ggccaaagag gccattcaaa tgcctcgag 119

<210> 2143
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2143
gaattcggcc aaagaggcca ttcaaaaaag gaagacggta ataaatagct tatttccaga 60
attgcctatt gattcttttg gatccttata aaaacaaaat catgcttttt aaatctgtgt 120
atctcgag 128

<210> 2144
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2144
gaattcggcc aaagaggcca ttcaaaactt actgctcatt ttacttttg catggaatac 60

agccatttag tcctaatata cataccaatg agacaattaa aaattggttg gaagatggtg 120
ctcgag 126

<210> 2145
<211> 205
<212> DNA
<213> Homo sapiens

<400> 2145
gaattcggcc aaagaggcca ttcaaaaaat gtatttattt tcagcattaa aatgcttcca 60
aaagatcaag ttgcttttgt ttgtttgttt ttttaaccgt aatgtagatg gagaaattgg 120
aggcaacctc agtataggaa ctgccacttt gagcagttta ggtcttaaag agaaagtcaa 180
tctaatgcca ataggagaac tcgag 205

<210> 2146
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2146
gaattcggcc aaagaggcca ttcaaaaaaa tgaaagcaag ttatgtatgc tattttgtaa 60
ttttctcttt taacattatc tctacctttt catgtcagct cgag 104

<210> 2147
<211> 160
<212> DNA
<213> Homo sapiens

<400> 2147
gaattcggcc aaagccaaag aggccattca aaaactaagg tatcaaattg tagtggaaat 60
aatccaggcg actacaatta gcagctttcc ccaactgaag aggcacaaag gtaaagaaac 120
tgcggcaatg aaagctgatc tcctgagggc cactctcgag 160

<210> 2148
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2148
gaattcggcc aaagaggcca ttcaaaatca ttataatatc cagtagctaa cattagatct 60
agcttattat ttcagaaatt aatttaggaa ataattatta aaacatgttg gctacagtag 120
cacttctcga g 131

<210> 2149
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2149
gaattcggcc aaagaggcca ttcaaaagag taatttgtga atttgttttg tatttataaa 60
atttatacct gaaaaatgtt ccttaatgtt ttaaaccttt tactgtgttt ttattcctct 120
aacttcctta atgatcaatc aaaaaaagta acaccctccc cgctcgag 168

<210> 2150
<211> 159
<212> DNA
<213> Homo sapiens

<400> 2150
gaattcggcc aaagaggcca ttcaaaaact tcatttgttt gagaaagaat gatattaatg 60

tgctttgtat gcctcctttt cagggtgggc atctcccttg cttttgagcg ccacccacct 120
cgtggctttc tggaggccaa gtccgctgtg ctcctcgag 159

<210> 2151
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2151
gaattcggcc aaagaggcca ttcaaaaatg ataaacatac tggctgttgt ggtgacaatg 60
acccaattga tgtgtgtgaa attggaagca aggtcactcg ag 102

<210> 2152
<211> 120
<212> DNA
<213> Homo sapiens

<400> 2152
gaattcggcc aaagaggcca ttcaaaaatg catagacaat ttgaagtttt tgatatattt 60
gtgatattta tcttgagcac tgcaatctca cccccccccg cccaccaagg gaatctcgag 120

<210> 2153
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2153
gaattcggcc aaagaggcca ttcaaaaaaa aaagttacca agccatgagg ttcaacatga 60
ttttggcata cattttgttc ttagaagtat ctggatcaca ggataaaatc agaaacgttg 120
gcacaacccct cgag 134

<210> 2154
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2154
gaattcggcc aaagaggcca ttcaaaaaag agtcactcag tatcagggat ctactgtctt 60
tgttcaaagg tcaaataaaa acctagtctc cttttattct actttctatt cttagctaga 120
atgaaactca gcatattact cgag 144

<210> 2155
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2155
gaattcggcc aaagaggcca ttcaaaaaat atgaagtata taaagcacct atgttatcta 60
ctttactgga tacataagtg ttcagtgaat gggaaacctc tcgag 105

<210> 2156
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2156
gaattcggcc aaagaggcca ttcaaaaatg gagacagcta tttgccttgt actttttcca 60
caattgttgc tgctagttgt acacatctct agttcagctc ttgcccacag actcgag 117

<210> 2157

<211> 117
<212> DNA
<213> Homo sapiens

<400> 2157
gaattcggcc aaagaggcca ttcaaaaatg ttgaaggagt tggtgttgct gaattgcttt 60
ttaacacaat tcaggcagct gacattgata ccagatctga attctacaaa cctcgag 117

<210> 2158
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2158
gaattcggcc aaagaggcca ttcaaaaaag tgtcagacaa aaatttaact ttttatgaga 60
tttcagtttt tgaaatacac aactcttaca gcacaaacac tcgag 105

<210> 2159
<211> 156
<212> DNA
<213> Homo sapiens

<400> 2159
gaattcggcc aaagaggcca ttcaaaaatg ggacctgtga agcaactgaa gaaaatgttt 60
gaagcaacaa gattgcttgc aacaattgtt atgcttttgt gtttcatatt taccctgtgt 120
gctgctcttt ggtggcataa gaagggacaa ctcgag 156

<210> 2160
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2160
gaattcggcc aaagaggcca ttcaaattac aatttgaaaa gaaaactatt ttttttaaat 60
attccattgt taactgaatg ttactgtttc cactcctact cgag 104

<210> 2161
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2161
gaattcggcc aaagaggcca ttcaaaaaag aaacggatga agctttcttc cttggatgtg 60
ttcatcattg gtgcagtagc caaagcgatt gccaccacgg tgacctatcc cctgcagacg 120
gttctcgag 129

<210> 2162
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2162
gaattcggcc aaagaggcca ttcaaagaaa ttaactgaac aaataaaaag tttttgatat 60
aacttcaatt aattgtacca catgctaatc ctgaagagat gtgtagatat cctcgag 117

<210> 2163
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2163
gaattcggcc aaagaggcca ttcaaaatgg agccagttac atacttcatc acatttgcaa 60
attctatggt ctttttgca tactttaacg tcactctcga g 101

<210> 2164
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2164
gaattcggcc aaagaggcca ttcaaaaatt ctgactattt ttaagacaaa agtctgttaa 60
actttttat tgtaaagaat atttattatg cgaatcctcg ag 102

<210> 2165
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2165
gaattcggcc aaagaggcca ttcaaaaaat gagtgttgga cgtcgaagaa taaagttgtt 60
gggtatcctg atgatggcaa atgtcttcat ttattttatt atggaagtct ccaaaagcag 120
aagcctcgag 130

<210> 2166
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2166
gaattcggcc aaagaggcca ttcaaactag cactttattt taaaaagtaa cttattaatc 60
acacattgat ggtacacctt gtatttagca aatgtttgct cgag 104

<210> 2167
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2167
gaattcggcc aaagaggcca ttcaaaaaca aaggtatggt gtttttcttc cttttggtta 60
aacatatatc ctttatatat atgacatttc atgccacata tgcaaacaca ctcgag 116

<210> 2168
<211> 112
<212> DNA
<213> Homo sapiens

<400> 2168
gaattcggcc aaagaggcca ttcaaaaaac aaagatgtat ggcttatttc aaacatcatt 60
ttactttgga tatatggcgg tatttagcac agccttgggg aacactctcg ag 112

<210> 2169
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2169
gaattcggcc aaagaggcca ttcaaagaca cagtatacat tcttctttga atctgtgtga 60
tattttgaac tctgtgttga gctcttcaca tcttgaatta aatgaggaaa ttaattgtgt 120
tgatatacct aatgctaaat gacgagttaa tgggcgcagc actcgag 167

<210> 2170
<211> 139
<212> DNA
<213> Homo sapiens

<400> 2170
gaattcggcc aaagaggcca ttcaaaaaat gtgtatagtt atgtgtatac taactctgag 60
tcttgttacc ctggttagtc tggtggatcc aatacttttt ggtcggattg ccatgcagca 120
tcatgataat gcactcgag 139

<210> 2171
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2171
gaattcggcc aaagaggcca ttcaaaaaaa tgttctctaa atattttctg cttcttgcag 60
gtctcttttt actagatcat ggctgttctt cccaccccat ccctctcgag 110

<210> 2172
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2172
gaattcggcc aaagaggcca ttcaaaaaat aaaaacctag tctcctttta ttctactttc 60
tattcttagc tagaatgaaa ctcagcatat atacactcga g 101

<210> 2173
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2173
gaattcggcc aaagaggcca ttcaaaaaaa acatttcaga ttttaatccg aatttagcta 60
atgagactgg atttttgttt tttatgttgt gtgtcacaac tcgag 105

<210> 2174
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2174
gaattcggcc aaagaggcca ttcaaaatga gagatataat ttacaaattt ttttattcta 60
tgggttttcc tttcactttc ttgatttcct tggagcacga cctcgag 107

<210> 2175
<211> 145
<212> DNA
<213> Homo sapiens

<400> 2175
gaattcggcc aaagaggcca ttcaaaaaaa cgattggaga aaggtggtaa agctgaacat 60
gaaaatcttt ttcgtgagaa tgattgcatt gtcaggatta atgatggcga ccttcgaaat 120
agaagatttg aacaagcatc tcgag 145

<210> 2176
<211> 122
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (56)..(57)

<400> 2176
gaattcggcc aaagaggcca ttcaaaaggt gcttcttttt aaaactagaa cttggnnata 60
ttgaatgtgt atttttcttt agtgaaatga tgttttatgt tattatgtgt gaagtactcg 120
ag 122

<210> 2177
<211> 121
<212> DNA
<213> Homo sapiens

<400> 2177
gaattcggcc aaagaggcca ttcaaaatat tttgtatttc aaaagatttc tacttttagc 60
agacaactga aaaagttatt ttctaattct tgaaatgtac actacatccc tcatcctcga 120
g 121

<210> 2178
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2178
gaattcggcc aaagaggcca ttcaaaaacg gtgaaagaga atccctgttg tactttatct 60
ttttgtaata ttatttttga atttttcatt atgttgcttt tgaaatttga tgcattcctc 120
ctcgag 126

<210> 2179
<211> 115
<212> DNA
<213> Homo sapiens

<400> 2179
gaattcggcc aaagaggcca ttcaaaaaaa taaaatgaaa aatctttttt taataatttc 60
atccctattt atagttttta tattaatttg tttttcttat ccaagatatc tcgag 115

<210> 2180
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2180
gaattcggcc aaagaggcca ttcaaaaatg cgtttctgtt tagctctgat gctcagcact 60
tggcttggag agggaggcca ggaggctggg gccggtttag cgcgtgaact cgag 114

<210> 2181
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2181
gaattcggcc aaagaggcca ttcaaaaata aaagcagagg aagaaaaatt caatagtttt 60
aaactgcttt acaattataa acaaaaaaag attatacaga aaattaactg acaaatgaga 120
aaaatatttg caacaactct cgag 144

<210> 2182
<211> 105
<212> DNA

<213> Homo sapiens

<400> 2182
gaattcggcc aaagaggcca ttcaaaaatt cagagaggat tcattggata gcgttctttt 60
tttaaagaag attgatagat gctggcaaaa ccattgctac tcgag 105

<210> 2183
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2183
gaattcggcc aaagaggcca ttcaaagatg gtgcaaatta gctttttatc ttctagcatt 60
tttttactac ctatatggca tgatctatgt tttggtgagc tcttagaaca acacacagaa 120
gaattgaacc tcgag 135

<210> 2184
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2184
gaattcggcc aaagaggcca ttcaaaacaa ccctgaaatc tattttgaaa agaaaaggca 60
ccagtgatat cagtgatgaa tctgatgaca ttgaaatttc ttccaagtct actcgag 117

<210> 2185
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2185
gaattcggcc aaagaggcca ttcaaaatga tgatggttct tcctttattg atatttgtgc 60
ttctgcctaa agtggtcaac acaagtgatc ctgacatgaa acggcgtctc gag 113

<210> 2186
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2186
gaattcggcc aaagaggcca ttcaaaaata ctggatcttt taaaaaacag tgtcaaataa 60
gcttagtgtt aggttgtctg atgagaacca atctaatatg gggagcactc gag 113

<210> 2187
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2187
gaattcggcc aaagaggcca ttcaaaaatg tttgtttcta agtatttttg tattgtgtac 60
attctgtata tttttgttgt aacatattat ttgagcacaa gactcgag 108

<210> 2188
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2188
gaattcggcc aaagccaaag aggccattca aaagacttgg ataacttttg ataaaagact 60
aattccaaaa tggccacttt gttcctgtct ttaatatcta aatacttact cgag 114

<210> 2189
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2189
gaattcggcc aaagccaaag aggccattca aagattccta cagcgaatga tcaccgctcc 60
ctgcatcctc ttcctgtttt atgggtcagt attacccttc acctgtcgtc tggcaattcc 120
catctctgcc tccaaactag ccctagcccg gagacccctc ctcttctcca actacccaca 180
gctcgag 187

<210> 2190
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2190
gaattcggcc aaagaggcca ttcaaaaaag aatagtagta actgtttcat agcaaacttc 60
aggactttga gatgttgaaa ttacattatt taattacagg gctcctcgag 110

<210> 2191
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2191
gaattcggcc aaagaggcca ttcaaaaaat gaagcttgga aagattttca tggttctctt 60
cttcgatttt atgaaaatgg agaactctgt gatgccaccc ctcgag 106

<210> 2192
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2192
gaattcggcc aaagaggcca ttcaaaaaat ttcagttgga tttttagaag taacttaata 60
ctctaaaatt tatatggaaa aatgaaggtt cccaatttgc tcgag 105

<210> 2193
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2193
gaattcggcc aaagaggcca ttcaaaatat tttcatgttc aaaatttaag ttttacattt 60
ttactactgt taatttaaat aaaatttgtt ctgtggataa aatgaggttg gcagtgagtc 120
tcgag 125

<210> 2194
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2194
gaattcggcc aaagaggcca ttcaaaaata atagaagtat attagttaac aggcaaacta 60
ttgcacataa accaaatctt tgcttaagca aaattttaga tgtattgtaa atgtattaaa 120
tacggactcc tcgag 135

<210> 2195
<211> 101

<212> DNA
<213> Homo sapiens

<400> 2195
gaattcggcc aaagaggcca ttcaaaaaag gcaaaaaaaa ttaacctgga aaaaacattt 60
ctgctatgtt taaatttttt tttggaatga gaatgctcga g 101

<210> 2196
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2196
gaattcggcc aaagaggcca ttcaaacaaa agaggccatt caaactcaga aggccaaaga 60
ggccattcaa aataaaggtt agatttgatg ttttttttta gatttatttt tcttactcca 120
ctcgag 126

<210> 2197
<211> 111
<212> DNA
<213> Homo sapiens

<400> 2197
gaattcggcc aaagaggcca ttcaaacatg ataaggatgg tacttgcata tggtgaatta 60
ctactgttga cagtttccgc agaaatccta tttcagtgga caccactcga g 111

<210> 2198
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2198
gaattcggcc aaagaggcca ttcaaagagg gtggtatcta tctagtcgta aatattttac 60
tgtaaccaat ttcccatcaa accaagagcc atgcaatgct ttaaaagcct ttccagcatc 120
attctcgag 129

<210> 2199
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2199
gaattcggcc aaagaggcca ttcaaacatc tcaggttgct gctgcttgtc tagtttaaaa 60
ggtcagatct attaatcagg aatgaaattt tatttgggat tcagtgctct cgag 114

<210> 2200
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2200
gaattcggcc aaagaggcca ttcaaaagct tgttttatga tctttttgcg taaattaatt 60
atacatgatt tctagatttt tggtcctcca cactctcgag 100

<210> 2201
<211> 182
<212> DNA
<213> Homo sapiens

<400> 2201

gaattcggcc aaagaggcca ttcaatttct tcataattat tgccatcact acttcactac 60
ttttcaggag aatgaaaaca gctgttggct atttactgca ctccttcact tggtctgtct 120
gtctctgtct tggtagttgc cggtggacag catggccgtg ccagcctccc actccgctcg 180
ag 182

<210> 2202
<211> 143
<212> DNA
<213> Homo sapiens

<400> 2202
gaattcggcc aaagaggcca ttcaaaatga ctaagaaaca ttatcgtgtg ttttttgtt 60
tgtttgtttt tttcatcctt tctctttcct tttcgttcaa aaattcagtt ccccatccta 120
gaccagactc ctccatcctc gag 143

<210> 2203
<211> 140
<212> DNA
<213> Homo sapiens

<400> 2203
gaattcggcc aaagaggcct ccagaagcac tgcgtatgaa gattattact accaccctcc 60
tcctcgcatg ccacctccaa ttagaggtcg gggtcgtggt ggggggagag gtggatatgg 120
ctaccccca gatactcgag 140

<210> 2204
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2204
gaattcggcc aaagaggcca tcatggagca gctgaaggag ttgaagcaga agggagaccg 60
agacaaagag agcttgaaga aggccatccg agcccagaag aagcggcctc gag 113

<210> 2205
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2205
gaattcggcc aaagaggcca ttcaaatgcc tatcttctcc agtctacaag ttacatgttc 60
ccacccagca ttacagttct tgaacatgtt atttccccac ttactcgag 109

<210> 2206
<211> 123
<212> DNA
<213> Homo sapiens

<400> 2206
gaattcggcc aaagaggcca ttcaaatttg atcatgagat tgcagcaatt cagtcacatc 60
ttcaatgctt tacttccagt tctagttctc ttcctgtttc cacacctagc caacgctctc 120
gag 123

<210> 2207
<211> 123
<212> DNA
<213> Homo sapiens

<400> 2207
gaattcggcc aaagaggcca ttcaaagagc aaagaagaca aaaactcaag gaacatctgt 60

tgagaagaaa aacgcttttt gcatacaagc aggaaaatga gatgttatcc agtactactc 120
gag 123

<210> 2208
<211> 178
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (42)

<400> 2208
gaattcggcc aaagaggcca ttcaaaaata cagtactctt cngtacaaag aaaaaagtca 60
catcacattt aataagatga aaaaagcatt ggcctccatg gtaaccaaat atctcagtcc 120
aatactttct attatgcaca ataccctgac ttcaattgaa agtgatccac atctcgag 178

<210> 2209
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2209
gaattcggcc aaagaggcca ttctagttcc atcacccaag ctttctctgt gtacttcaag 60
taaaaagcca tcatgaaaat ctggttcaca ggcatcctcg ag 102

<210> 2210
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2210
gaattcggcc aaagaggcca tttgttacaa ctccctatat aaatgcaatt cttcattctc 60
aagaccttat ttgtgttgtt tccccactgg actcttccca aatgcaaacc aggcccagtc 120
gcactcgag 129

<210> 2211
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2211
gaattcggcc aaagaggcca ttcaaattgc taattataat atttgtgtcg gtagaaataa 60
ctatagttcc ccttcatgaa attcaccccc acgttcctcg ag 102

<210> 2212
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2212
gaattcggcc aaagaggcca ttcaaacatc tctttagtat ttttccgcct aacacttaga 60
tcctgatcat attccaggaa aacatgaaag ttgcgatcat cctcgag 107

<210> 2213
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2213

gaattcggcc aaagaggcca ttcaatatgc tcttcttggt tccatgtccc gacaaccaca 60
gaggttttcc cactatcctt gtcctcatgg tattgatgta catgtttgcc atagcagaat 120
tcatatttcc accaaccgac accccactcg ag 152

<210> 2214
<211> 121
<212> DNA
<213> Homo sapiens

<400> 2214
gaattcggcc aaagaggcca tgatgctgga cacactgtca aagtcaatct tctccacaat 60
gttcttgggt ttaatgctct cttcttggct gggggctcca cttggcgcat gcgagctcga 120
g 121

<210> 2215
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2215
gaattcggcc aaagaggcca ttcgagggtg tcaggactaa gagaagtcac aaaacagcag 60
atttcccaag agcagcggaa aatgatccag tcacagtcgt cacgctcgag 110

<210> 2216
<211> 118
<212> DNA
<213> Homo sapiens

<400> 2216
gaattcggcc aaagaggcca ttcagcatga cgcagtggaa aaaaacattt cgagtctata 60
gacctggacc agtggaagac ctgggttgga attctactct gcacttccgc agctcgag 118

<210> 2217
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2217
gaattcggcc aaagaggcca ttcaactcag agcatttcac tcaagaatgc atttgctccc 60
actcgctttc ttgcttccaa gtctgctgat taaaattcca tccaacttga aagattttgt 120
aaactattcc cacaagacag aactcgag 148

<210> 2218
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2218
gaattcggcc aaagaggcca ttcaggattg gaatggtttt cttttgtttt tttgttgttg 60
ttgttgttgt tttgagatgg agtctcgctc tgtcacccag gccggagtgc ctcgag 116

<210> 2219
<211> 169
<212> DNA
<213> Homo sapiens

<400> 2219
gaattcggcc aaagaggcca ttccgttttg agtctctgga gcctgaactc tcaccatgta 60
ccagaaaaga atgcccctct ttcgaacttt caaacagttg ggattatttt tgtttcttat 120
catcccaatt atttgctcaa gtttgcctcc attgggtccc ggcctcgag 169

<210> 2220
<211> 120
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (16)

<220>
<221> unsure
<222> (112)

<400> 2220
gaattcggcc aaagangcca ttgtaatcat catagcctcc atagcctcca ccataagcac 60
cacgcctcat cctctcaaag ccagctcctc tgccaatgct gttataccct cntcctcgag 120

<210> 2221
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2221
gaattcggcc aaagaggcca ttcaaacagc aaataaagaa aatccatagg tactaagata 60
actgttctct cttcatatga tactaacagg cttatggctc gag 103

<210> 2222
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2222
gaattcggcc aaagaggcca taaattattt tttacttttt ggcaaattgt tacagtttat 60
ggggtctaca atttattttt ttattttctg gcttaagtta tctaggattt gtttctgtgg 120
tactctcgag 130

<210> 2223
<211> 181
<212> DNA
<213> Homo sapiens

<400> 2223
gaattcggcc aaagaggcca ttcttacggt actaaaaatt attgaatata ctcttttcaa 60
attatttaat atgacccaaa attttagaaa tgtgtgttct ctcatactaa tgataatgac 120
ccttaatcta gaaaactgtg ctaaaattat agctattaaa aatcttcctg aagggctcga 180
g 181

<210> 2224
<211> 143
<212> DNA
<213> Homo sapiens

<400> 2224
gaattcggcc aaagaggcca ttccatttag caactgatca ttttgagaac tgataccaag 60
ctgtatgtcc aagatctctt caattggttc actttgtcca tcaggttcat cagtatcaag 120
tgctgaaagc tctaactctc gag 143

<210> 2225
<211> 152
<212> DNA

<213> Homo sapiens

<400> 2225
gaattcggcc aaagaggcca ttcaaagata aaatgttcaa attcctcatt tcactatttt 60
actcattttc aggctttcct gaaaatgagt cctgggtcaa ttactcgggg ggcggtcgaa 120
ggccgctgtc ccttcccgtc cccagtctcg ag 152

<210> 2226
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2226
gaattcggcc aaagaggcca ttcaagaatt taaaaaatga tatttaggta ccaagtccag 60
attgtaactc ttggaatttt tctcctggaa gcatttagtt atatttctgt cccctttcaa 120
aatgaacccc tcgag 135

<210> 2227
<211> 120
<212> DNA
<213> Homo sapiens

<400> 2227
gaattcggcc aaagaggcca ttcaaaagac aaactggata cattgagctt accagaaaga 60
aagtgaatca gcttgcatta caattctatg ttaaataatt tatttactat tacactcgag 120

<210> 2228
<211> 148
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (57)

<220>
<221> unsure
<222> (134)

<400> 2228
gaattcggcc aaagaggcca ttccctcgat acattcctgg ctttcttctg ggcaaanggg 60
tgccacattg gaagaggtgg aaatataagt tctgaaatct ggtacacagg acttgcggct 120
gcagtcaccg aacngggttt cactcgag 148

<210> 2229
<211> 161
<212> DNA
<213> Homo sapiens

<400> 2229
gaattcggcc aaagaggcca ttcaaatcac acatttctac accaatcatc ataagaaaaa 60
agtactctgt agtcgatctg tacatccaaa tgcatttggg aatctacacc tacgttacat 120
tatttaatgt tatatacatt tattacccac ccacactcga g 161

<210> 2230
<211> 203
<212> DNA
<213> Homo sapiens

<400> 2230

gaattcggcc aaagaggcca ttcccaggtg acctctgttc attttcatag gggcctctga 60
agatgctatt ctcaacttta ttgattatta ttattctcag acagggtctt gctctgtcac 120
ccaggctgga gtgcagtggt gcaatctcgg ctcactgcaa cctcacctcc ccggttcaag 180
gaattctccc actcaccctc gag 203

<210> 2231
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2231
gaattcggcc aaagaggcca ttcaacagag gaagaaatca aatcatcctt tctagaaaca 60
ttaaaagttg cctgcagcaa gtctgatgaa gtgtcattgg ctcgag 106

<210> 2232
<211> 143
<212> DNA
<213> Homo sapiens

<400> 2232
gaattcggcc aaagaggcca ttctcgacac cctctgtaca cagcatgcgc tttatttggc 60
ttctcttacg cagcgtagtg actttcagat ttattcaagc tgctgcgtgc gccaacagtc 120
cactccttcc tagtgcactc gag 143

<210> 2233
<211> 161
<212> DNA
<213> Homo sapiens

<400> 2233
gaattcggcc aaagaggcca ttcaaccttg ttaaaagaaa ctgggaattc tgtagagtct 60
gctgactgct ttctgtatta gctatgttgg ttgttgctgt ggattgtgtg attgtagtgg 120
tgacactgct tgtgttagta cgccgggttg cattactcga g 161

<210> 2234
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2234
gaattcggcc aaagaggcca ttcagatatg tttatatcat tactagtaaa tggcacaatt 60
atattgtgtt gcagtgtgtt gatgttaaag tcaaaggctg cagcatgtct cgag 114

<210> 2235
<211> 150
<212> DNA
<213> Homo sapiens

<400> 2235
gaattcggcc aaagaggcca ttcaaagtat acacaaatat tatagtatta taaaatcagc 60
agataactgc attaacagga ctttacgttt aggaactaca tccttccatt tgaggattaa 120
aatatgtatc ttatatacca ctttctcgag 150

<210> 2236
<211> 158
<212> DNA
<213> Homo sapiens

<400> 2236
gaattcggcc aaagaggcca ttcacaaata ttacagtttg ataaaaactt cacacacata 60

ctcccaaagt ctataccaga ttcagtcaac tttactaaat cattcaaata ataaaagtaa 120
tgaaaacatt attatatttt aaagcaataa gtctcgag 158

<210> 2237
<211> 203
<212> DNA
<213> Homo sapiens

<400> 2237
gaattcggcc aaagaggcca ttcaagaaga cttaaaaaaa atacaatatc caattagaaa 60
agccatattt taaacatttg tacaagaata agctgctgaa acttagtaat tgaaatatga 120
catctgtaca acaatttaca atagagctag aagggaattt atcattatcc tgcatagaac 180
tggtctgcat ttggttcctc gag 203

<210> 2238
<211> 136
<212> DNA
<213> Homo sapiens

<400> 2238
gaattcggcc aaagaggcca tgaagttatc agatgttgca aacacatgct ttttgccttt 60
tcacatggtt atgatctctc gtgtgtgtaa tgtgaggtcc caatgctccc acttctacgc 120
ccaatcacag ctcgag 136

<210> 2239
<211> 142
<212> DNA
<213> Homo sapiens

<400> 2239
gaattcggcc aaagaggcca ttcaggtggc attgatctgg gagaagagca gcatcccttg 60
ggcacaccca ctccaggacg caagcgaaga aggaagggag gagacagtga ttatgacgat 120
gatgatgacg atgacactcg ag 142

<210> 2240
<211> 178
<212> DNA
<213> Homo sapiens

<400> 2240
gaattcggcc aaagaggcca ttcaaactgg gaaatctgaa ttacacgata ccccagaatt 60
tccaaatgtc gtttttttca tagcagattt tcctttcatg tgagggatat ttctacaaag 120
tgcttttgaa tccaaaaatt ccaaagcaat cctttcagcc cctggtggca tcctcgag 178

<210> 2241
<211> 141
<212> DNA
<213> Homo sapiens

<400> 2241
gaattcggcc aaagaggcca tttctttctc taagcagaag ggatagccac cattttctcc 60
cctgactgct gcgtggtggg cacaggacag gcaggcgggg tctgaggagg ctgggtcatt 120
tctgcctaag cgcacctcga g 141

<210> 2242
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2242

gaattcggcc aaagaggcca ttcaaagaga cacagagata cgctgagtga tacagaggtt 60
cagacacact ttcagaatca caacgacact cagagacaca aaaatgcatt tagggatact 120
gatactcgag 130

<210> 2243
<211> 132
<212> DNA
<213> Homo sapiens

<400> 2243
gaattcggcc aaagaggcca ttcaaagaag agtcttatat gagatcaaat ggctgccttt 60
ccccacaaga ttatattttt cctggtatgc tctactttga cacatgtggc tttctcaggt 120
gagtacctcg ag 132

<210> 2244
<211> 197
<212> DNA
<213> Homo sapiens

<400> 2244
gaattcggcc aaagaggcca ttcaaactaa tttccaagat tctaaaagtt cttcataatt 60
tgtctttctt cccattcctt cacattgacc tctgcaacct tattccttgc cagccattac 120
caatgagaat attctctgat ttacccagaa agatcatgat ctttgaacta gctattcgtg 180
ctacctcatc cctcgag 197

<210> 2245
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2245
gaattcggcc aaagaggcca ttgtgaaaac tcctaaaata tagaatagca ggagcaaaga 60
ggctctctag agaggaactg agtgttttta tatgaaattg tggccacatg aaactcagga 120
tactcgag 128

<210> 2246
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2246
gaattcggcc aaagaggcca ttcagtgtgt tgacaataat cagtctgttc tagtatctgc 60
acatacctca gcgggaaaaa cagtatgcgc cgagtatgcc attgcttcct cgag 114

<210> 2247
<211> 238
<212> DNA
<213> Homo sapiens

<400> 2247
gaattcggcc aaagaggcca ttcaaagata ccaatcaatt tcttactggt gaaatatata 60
agaacttcca ggagtcacaa gagttccaaa caattaattt ataaaaataa caaaacattt 120
gtctatgaaa aaaagatcag gattcactct catcgacgtc ctcatctgga tggtgctcag 180
catcctcctt ttcctgctgc tgtttcttcc acagtttggc tatttcagga atctcgag 238

<210> 2248
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2248
gaattcggcc aaagaggcca ttcagttgcc ccggatctgt gtcatctttc tgtagctttt 60
cccactggga acttgatatt tccctgagat aaacagtctg catagctttc ttcaaatgag 120
gttcaatatt tctccacagt tactcgag 148

<210> 2249
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2249
gaattcggcc aaagaggcca ttcaagaata cacactctgc aagttctaag cctgtattta 60
gtctcaaacc accgctctgc acactacaaa gattttggta taacgtatca catctagaga 120
aaggcacaat gtatttccca ctatttctcg ag 152

<210> 2250
<211> 190
<212> DNA
<213> Homo sapiens

<400> 2250
gaattcggcc aaagaggcca ttcaaaggga ggtaagtggt attgtaaacc aaagtaaaaa 60
tacaaaaatg ttatgcttgt tatgctatat gctctatttt tctgtctttt tatttttttt 120
tgagacggag tctcactctg ttgcccaggc tggagtgcag tggcgagatc tcggctcacc 180
gaacctcgag 190

<210> 2251
<211> 137
<212> DNA
<213> Homo sapiens

<400> 2251
gaattcggcc aaagaggcca ggttcgtgaa gttcgtaaag aagagcaacg ttatagtggt 60
gaattatctg gcattcgtgc aggagttaaa aagagcatta agcttaaatg aagtttttgc 120
ttagcataac actcgag 137

<210> 2252
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2252
gaattcggcc aaagaggcca ttcagtgctg atccaggaat aaatttcacc ttttttaaca 60
attccttggc tgcagtctta atatccgtga tgtttataaa ccactgcttg ctcgag 116

<210> 2253
<211> 149
<212> DNA
<213> Homo sapiens

<400> 2253
gaattcggcc aaagaggcca tcaaatcaaa agtgaaaagg agtaaaactt ctaaggatgc 60
taataaatct ctgccttctg ctgccttgta tgggattccc gagatcagca gcactggcaa 120
gaggcaggaa gtccggggtc gctctcgag 149

<210> 2254
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2254
gaattcggcc aaagaggcca ttcaaagaga acttgagatt caaaagaaaa ggctggataa 60
attaaaatct gaggttaatg aaatggaaaa taatcctcga g 101

<210> 2255
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2255
gaattcggcc aaagaggcca ttcaatttca tctctgtctc ccccgattgc catccagaat 60
gctttggcca ccttttctgc atgcactttt cttcactctc gag 103

<210> 2256
<211> 172
<212> DNA
<213> Homo sapiens

<400> 2256
gaattcggcc aaagaggcca ttcaaaaggc ttgtgggttt tttaaaaact gttttaaaat 60
tcattcttca aaaatgttca gacatgacca cgttggtttc atcacagtgc ttatgaagtt 120
tcttcatttt tcatgtgtcc aagcaggcct gaacaccccc actttcctcg ag 172

<210> 2257
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2257
gaattcggcc aaagaggcca ttcaaacaaa taattaagca aatactttaa tacttacaac 60
tgtgacacaa tagccatgaa gaaaaaggtg ctgttgatga gtctcgag 108

<210> 2258
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2258
gaattcggcc aaagaggcca ttcaaaaaat atgtggtcaa gaactaaacc aaacaaacct 60
ggatgatcct aggccaaaac aattcctttc caggcactcg ag 102

<210> 2259
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2259
gaattcggcc aaagaggcca ttctttgcaa gtcatccatg ttgttactta ggcattttat 60
cttggctcaa attgttgaag aatggtggct tgtttcaaga agtgtggcaa gcaccaaccc 120
cataaagctc gag 133

<210> 2260
<211> 179
<212> DNA
<213> Homo sapiens

<400> 2260
gaattcggcc aaagaggcca tttatgttta atgcaactat tgaaatgttt ggctttagat 60
ctaccattat gttgttttct gtttgttccc tgttttccat tgctgtttct tctttccttt 120
tttccttccc tcctatctct ccttctccct atacacacac acacacacca aggctcgag 179

<210> 2261
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2261
gaattcggcc aaagaggcca ttcataatac taaaaagtta aagattacct aaatctgtaa 60
cagtagaaaa ttatctaaat aaattatgaa atatacatcc atcctcgag 109

<210> 2262
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2262
gaattcggcc aaagaggcca ttcaaagtca tctaaccaaa taccttcccc cacagctaag 60
aaagaatccc agtgtttccc tagtttagag atgaagatac tcgag 105

<210> 2263
<211> 231
<212> DNA
<213> Homo sapiens

<400> 2263
gaattcggcc aaagaggcca caaatagtgt aacaaatcca aattgagtaa ctgtttctaa 60
gtactcatag aaaagcccaa ggggtccaaa actttcaagg tcatgatcct gctcccatcg 120
actatacagc ttctcagagt ttgtccgagc ttttcggcgt ctccaccaat tcaaagccaa 180
gggataaatg gcttctttaa tgtttccaaa aatctgtttc ccggtctcga g 231

<210> 2264
<211> 120
<212> DNA
<213> Homo sapiens

<400> 2264
gaattcggcc aaagaggcca ttcaaagaga attggtagag ggggttgatt ttttggaggt 60
cattaataac aaaataaaga agagatgctc ttgctgccaa tggtctgtaa cattctcgag 120

<210> 2265
<211> 233
<212> DNA
<213> Homo sapiens

<400> 2265
gaattcggcc aaagaggcca tacagctctg ttcccatgaa cttcttccgc tcccatttgc 60
cgtccttcat cgaagccgtc gcctggggaa tctgcctggc caggcacatg atcattccac 120
aagtgagttc tgcggcactg aggctgttcc cattgggggt gttcataacc aagatgccct 180
tccttgttgc ggcctccaga tccacattgt ccacacctgt gccagccctc gag 233

<210> 2266
<211> 151
<212> DNA
<213> Homo sapiens

<400> 2266
gaattcggcc aaagaggcca ttcaaagata ggcttggtgg gacaaaacta atatgcatac 60
tacatacata tatttcttgt cttctttact gtcaatcttt cagaacagta acatgacatt 120
acaaacacct caaattccca cttctctcga g 151

<210> 2267

<211> 117
<212> DNA
<213> Homo sapiens

<400> 2267
gaattcggcc aaagaggcca tttagactat ctctttgcta atttttgctt actgctgtag 60
ggaagaagat ttccaatgaa ctttaaatat ctcattcatg tctaccattg tctcgag 117

<210> 2268
<211> 132
<212> DNA
<213> Homo sapiens

<400> 2268
gaattcggcc aaagaggcca aaggctaaga ctgtctaagt ccagatattc gaaagcaagc 60
taattattat tgaaactcta agatattatt aagaaggaca atcaagaaat gaaagctgta 120
cttgttctcg ag 132

<210> 2269
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2269
gaattcggcc aaagaggcca ttcaaatagt tcgtacaact acagatacca gttctcatag 60
cttggcatat tcaaccatat atgaaaacgc atttcctcga g 101

<210> 2270
<211> 106
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (86)

<220>
<221> unsure
<222> (88)

<400> 2270
gaattcggcc aaagaggcca ttcacgattc agaattttct gtttaaaaat ctttcgaagt 60
atgttatatc acttattttc atcagnanaa cgtcatggct ctcgag 106

<210> 2271
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2271
gaattcggcc aaagaggcca ttttctgttt catcatcatc agatccttct tctccctttg 60
gatgtcttct cctctttttc ttctttctct caccaccctc ctcatcttca ccttcttgtt 120
cactgccact accctatctt ctctcgag 148

<210> 2272
<211> 115
<212> DNA
<213> Homo sapiens

<400> 2272

gaattcggcc aaagaggcca tgacttcatt ttcaaatatt tctggggctg tttgtatctt 60
gttcctttgt gaagtgtgtt gcagaaccga cgcttactgt gcaagagatc tcgag 115

<210> 2273
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2273
gaattcggcc aaagaggcca ttcaaatctt atcaaatgaa actgttgcca ctcttaaatt 60
acacaaccgc tgtatttcag tgttccactg actcacaatc actcgag 107

<210> 2274
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2274
gaattcggcc aaagaggcca ttcaattttt cattttcctg ctcaatatta gccatttttt 60
cactagtcaa tattcctgat gctttttca actgttcatt ttctcgag 108

<210> 2275
<211> 144
<212> DNA
<213> Homo sapiens

<400> 2275
gaattcggcc aaagaggcca ttcattacct tcgctcatga tcccagcagc catttttctt 60
aacacccttct gccactttct gtcggtgcta atggatggaa ctcctgcaca agttttaact 120
gaacaagaaa ccccaaggct cgag 144

<210> 2276
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2276
gaattcggcc aaagaggcca ttcaacttcc atagtacatt ttacagtgag caattcatac 60
aacagtatac aacagtgatg atcttgagaa aaataaaaag ctgcatgctc gag 113

<210> 2277
<211> 176
<212> DNA
<213> Homo sapiens

<400> 2277
gaattcggcc aaagaggcca ttccatagct tgccttttttg ctctcagtta tttcctttga 60
tgcacaattt ttttacattt gatatagaca catttgtctg tttttggttt ttttatgtat 120
gctttggatg tcatacccaa gaaatctttg ccaaatccag tgtccagaat ctcgag 176

<210> 2278
<211> 140
<212> DNA
<213> Homo sapiens

<400> 2278
gaattcggcc aaagaggcca ttcataagaa agtgttatat ctaggttttt aaaactgaag 60
ttgaaattat ctttgttagc agtagtagta tagaataaaa gatccgtatg ctggttcgta 120
gattgatacg tgtcctcgag 140

<210> 2279
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2279
gaattcggcc aaagaggcca ttgatgtgtt tgtggaagct actcatgttg cccttgcatt 60
ggggagcctg gttagaactc tgtaacctga tcacagacaa agagatggta aattgtgatg 120
agctcgag 128

<210> 2280
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2280
gaattcggcc aaagaggcca ttcaaactgc tgctgttcaa aacgtgaaat gattctgctg 60
aatccattct tgatgtctct ctttagtggt cttctcatta gtggtcatct cgag 114

<210> 2281
<211> 110
<212> DNA
<213> Homo sapiens

<400> 2281
gaattcggcc aaagaggcca ttctcttccc ctgtgtgcct cagtgtcctt ctcatttcag 60
tagggacttc tgaaatgggg gaggcagtgt ggaatactgt gaatctcgag 110

<210> 2282
<211> 136
<212> DNA
<213> Homo sapiens

<400> 2282
gaattcggcc aaagaggcca ttcaaaggga aacaaatatc agtaatcctc tttgttctaa 60
acaaaaattc ataattattt atacatttta aaatattata ttgtttcaaa tgttgttagt 120
ggggcatatc ctcgag 136

<210> 2283
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2283
gaattcggcc aaagaggcca ttcaaacaag aaattatgcc aatcaactgt caaattttca 60
ctataatttt cctaaaaagg cgtttttccc ccaataatct cgag 104

<210> 2284
<211> 170
<212> DNA
<213> Homo sapiens

<400> 2284
gaattcggcc aaagaggcca ttcaaactct aacacaaaat gatcacaggc tggcagagac 60
acagaagcag gcaacaattt atctggggtc taatcagagt catcataact ctcatcacta 120
tcttgctcct tttctccagc acttacttcg tcttcttcac catcctcgag 170

<210> 2285
<211> 116
<212> DNA

<213> Homo sapiens

<400> 2285
gaattcggcc aaagaggcca ttcaaaagct tctcagcacc atcccacttt tcctgtttgt 60
ttattactct tcaacagcag tttcacctca tgctttttaa ttttgtcatc ctcgag 116

<210> 2286
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2286
gaattcggcc aaagaggcca ttcagtctcc ttatcatgat tttggacccc gatctctttt 60
tcctcttgtt ctttgaggct gtgggtatct tgggaggctc ctcctcttct tccacaatac 120
tcgag 125

<210> 2287
<211> 194
<212> DNA
<213> Homo sapiens

<400> 2287
gaattcggcc aaagaggcca ttctgtatat cctgaacaaa gccatcttta tcatagccat 60
tagtgacaat gacttccaaa ttcttatggt ctgctgactt cttcatcatt ttcttatcat 120
tatcactttg ttctgctcct ttcacttctt cttgggcctc ttcttcctca gactcggctc 180
cactgtcact cgag 194

<210> 2288
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2288
gaattcggcc aaagaggcca ttcaaagagc tattcaatgt cagttacaag cctgtcccaa 60
ttatatccct actactcacc atccccgcac ctatcactgg cattttctgt ccatatctta 120
ctcgag 126

<210> 2289
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2289
gaattcggcc aaagaggcca ttctccacac tttaaatttg acttgacatt ttctaggcag 60
atataagtta ttagagaatg agattctcta taaaaatgat cccttcattt ctcgag 116

<210> 2290
<211> 312
<212> DNA
<213> Homo sapiens

<400> 2290
gaattcggcc aaagaggcca ttcaaagctt ctcaagtcag ctaagtcaga cagaactgca 60
gagatagaag tagaagggaa ctcagattct tcctcagcta gggtagaatc caggaacctc 120
gagtaatagc cattctgact ggtgttaggt ggtatctcgt tgtggttttg atttatttgc 180
atttctctaa tgatcagtga tattgaggtt tttttaatag gcttgttggc tgtatgtata 240
tcgtcttttg aaaagtgtct ggctggggcg gtggctcagg cctgtaatcc cagcactttg 300
gataggctcg ag 312

<210> 2291

<211> 148
<212> DNA
<213> Homo sapiens

<400> 2291
gaattcggcc aaagaggcca ttcaaatgat gttatttctt ggttgcaacc agttgtttca 60
atttctttta tttgatccat acattttatt tcttcttgtg ttccattttg ttgtagtagt 120
gtctcttcgg gattcggctg gcctcgag 148

<210> 2292
<211> 128
<212> DNA
<213> Homo sapiens

<400> 2292
gaattcggcc aaagaggcca ttcatgcaga ctttttaac gattttgaag atctttttga 60
tgatgatgac atccagtgag atgccctctg gctgcaggcg gggccaagcc cttggcacag 120
agctcgag 128

<210> 2293
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2293
gaattcggcc aaagaggcca ttattcttcc aattacttta ggaaatttat tatcttttga 60
atatcagaac caaatgttac taactatccc aatcctcgag 100

<210> 2294
<211> 183
<212> DNA
<213> Homo sapiens

<400> 2294
gaattcggcc aaagaggcct agggacctag cgcagggctt ttggtaatcc ataaaatgga 60
ttctgagact gcgacggcaa ggctgtcctg tcccccaggc acccaaggat cctgccagac 120
agcacacttt ggaggaaggt ctgcagggag cagctgagcc atttgttctt gaacgcactc 180
gag 183

<210> 2295
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2295
gaattcggcc aaagaggcct agtgtatatt aggctgtctg aaattgtgca acatgttact 60
gatgctttat ttttttccta tctccttttc tctctgtagt ccatactgga tagttcctgt 120
tgccggtctc gag 133

<210> 2296
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2296
gaattcggcc aaagaggcct agtggtatct tgcaggaact gtgtgctaaa attgaacaat 60
ttttttgaga ttatggttgc aatacttggc gtgctactcg ag 102

<210> 2297
<211> 133

<212> DNA
<213> Homo sapiens

<400> 2297
gaattcggcc aaagaggcct agatcagata ggtaaactgc aagatagata ggatgaaact 60
tttggcctac tgtattactt acagagtttt tttgtgtgtg gtttttaaaa ctgttaaggc 120
aagaagactc gag 133

<210> 2298
<211> 147
<212> DNA
<213> Homo sapiens

<400> 2298
gaattcggcc aaagaggcct agttgtcagt tgtctcttcg ttttgttaag gtttttaata 60
agtacgtttg gcataatgtc ttttaatggg tttgtaatat ttgtaacggt tttagcagcc 120
tataactttt cagctggtgc cctcgag 147

<210> 2299
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2299
gaattcggcc aaagaggcct acgattgaat tctagacctg cctcgagtgt gtggcaggtc 60
tagaattcaa tcggccaaag aggcctatga attctagacc tgcctcgag 109

<210> 2300
<211> 171
<212> DNA
<213> Homo sapiens

<400> 2300
gaattcggcc aaagaggcct agcgacgttg acttcgaaat tgtactccct gctgttccgc 60
aggacctcca ccttcgccct caccatcatc gtgggcgtca tgttcttcga gcgcgccttc 120
gatcaaggcg cggacgctat ctacgaccac atcaacgagg agaaactcga g 171

<210> 2301
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2301
gaattcggcc aaagaggcct aggaggtttg aaagaaggta gtgggctcag aaacattaaa 60
agttaggcac aaaggacaag gaaaaataaa cgaaaataaa tataatgaga atatatccaa 120
caatcctcga g 131

<210> 2302
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2302
gaattcggcc aaagaggcct aattgaattc tgcttgtcat taagataagg tgaataagtg 60
tcttaaacgt cctgtaaaac.cggactcccc tttgttacat gcacattttc cattgttacc 120
tcgag 125

<210> 2303
<211> 137
<212> DNA

<213> Homo sapiens

<400> 2303
gaattcggcc aaagaggcct aaaaagaata tgtggaactg ttcactgagt gtaataattt 60
ttttatcctg tattattcaa caggctacag ttcttagcag gagagagagc gaggagttgt 120
caggaaatgc tctcgag 137

<210> 2304
<211> 136
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (77)

<400> 2304
gaattcggcc aaagaggcct aatgaatgta taaagcgctt ttgttccaaa gatctaaaga 60
cttccacaca cactcantga tgaaattctt attttactgt ttcctttgct gtgttattgt 120
agatgccaga ctcgag 136

<210> 2305
<211> 138
<212> DNA
<213> Homo sapiens

<400> 2305
gaattcggcc aaagaggcct attgatagtg tggacccccca tggcttcatc tcctaccgcc 60
tattccggga cgccacaaga tacatggatg gacaccatgt aaaggatatt tcatgtctga 120
atcgggaccc agctcgag 138

<210> 2306
<211> 194
<212> DNA
<213> Homo sapiens

<400> 2306
gaattcggcc aaagaggcct aggtgtgaca gatcaattgt caataaatca aggcagactg 60
cactggatat tgctgtattt tggggttata agcatatagc taatttacta gctactgcta 120
aaggtgggaa gaagccttgg ttcctaacga atgaagtgga agaatgtgaa aattatttta 180
gcaaaacact cgag 194

<210> 2307
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2307
gaattcggcc aaagaggcct aaaaacttca agacattcaa aaactaggaa ggagtatgtt 60
taatagtatt tgtataaatt tggtggttat gtttttttat tttgtttctg ttttgtgtag 120
aggtgatctc gag 133

<210> 2308
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2308
gaattcggcc aaagaggcct actcagcttc tcccataggt agtttaacag gcattaaaat 60
ttgtaattga aatgttgctt tcactgaaaa agtgtctcga g 101

<210> 2309
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2309
gaattcggcc aaagaggcct actttttatt ttgtacttaa aattctggta ctgacacttc 60
acaggctaag tataaaatga agttttgtgt gcaccttctc gag 103

<210> 2310
<211> 161
<212> DNA
<213> Homo sapiens

<400> 2310
gaattcggcc aaagaggcct acagatagga atctaaatat ttatagtgag attgtgaaag 60
caaccttaaa gttttgaaga agactgatga gactaggtgc tttgcttcct ttcatcaggt 120
atctttctgt ggcatttgag aacagaaacc aagaactcga g 161

<210> 2311
<211> 101
<212> DNA
<213> Homo sapiens

<400> 2311
gaattcggcc aaagaggcct agattggaaa tctgtagcaa gatgctgttt aaaattacca 60
tattgttttt ttatcttata cttagctctc tggcactcga g 101

<210> 2312
<211> 150
<212> DNA
<213> Homo sapiens

<400> 2312
gaattcggcc aaagaggcct agtgctgaat gatatgtttg ggtaaatca gtttttttct 60
tatagaattt cggcgttttt gctgcaactg ccactaattt tgcatttaaa agaacaaaag 120
aggaatgtat ttttcgaagg agctctcgag 150

<210> 2313
<211> 149
<212> DNA
<213> Homo sapiens

<400> 2313
gaattcggcc aaagaggcct aagactttct gtcgtggttc ttagtgtgtt gtcatatcat 60
tgtccaagaa atatctaatc ttaattgttg ttattaatac tagctgggac attatgttgt 120
atatttattt aatttgcatg ggactcgag 149

<210> 2314
<211> 153
<212> DNA
<213> Homo sapiens

<400> 2314
gaattcggcc aaagaggcct acttaagcat tactttttta actttgtgcc atttggtctt 60
tactttttat ggatgttttc aaagaaacta ttttatattc aatctagttt atttagtcta 120
ctgtatttct atttcgtgga agcgggactc gag 153

<210> 2315
<211> 125

<212> DNA
<213> Homo sapiens

<400> 2315
gaattcggcc aaagaggcct agtaacaacc agatggcttc actgaaacct gcttttgtaa 60
attacttttt tttactgttg ctggaagtgt cccacctgct gctcataata aatgcagaac 120
tcgag 125

<210> 2316
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2316
gaattcggcc aaagaggcct aagaaaataa acctaaattg tgtcgtaatt aagattatta 60
aaattagaat tatacaatga cttatttttg gtggcaaatt ctcgag 106

<210> 2317
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2317
gaattcggcc aaagaggcct aaacagttgt gaagaacaag taatgaaggt gggagggatt 60
gtgtttttttg ttttggggac agggtctcac tgtgtcaccc aggctgatct cgag 114

<210> 2318
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2318
gaattcggcc aaagaggcct aaaacaactt acgttttcac aagccttaaa atttgaccaa 60
ataaactttt tttctgcttc atgcattttt cccagcatct tctcgag 107

<210> 2319
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2319
gaattcggcc aaagaggcct aacctgaagt aacctgatgt taaccaatct gctgtgtcta 60
ctatgctgtt tccttgttcc tgctagtgct gctttactcg ag 102

<210> 2320
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2320
gaattcggcc aaagaggcct aaggataagt actagaaata ttcatttttt tccttcacaa 60
atctaaatgt tgcttatgaa aactcatctt agaatactcg ag 102

<210> 2321
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2321
gaattcggcc aaagaggcct agcggaacag tcattataca ttatttagac tcattccttc 60

ttccagtgcc cttatgatta ttttgcattg catactcgag 100

<210> 2322
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2322
gaattcggcc aaagaggcct aggttttgtg gacttttatc tcatctctgt atctgatctt 60
attctcctaa tgaaactgtt ggtttcgaga gcccttctcg ag 102

<210> 2323
<211> 158
<212> DNA
<213> Homo sapiens

<400> 2323
gaattcggcc aaagaggcct atctgttttt tgaaatcctc ttttttacat tgtttaaaga 60
taatgccttg gctaaaaagc ctgcttcact tttccctgtt tttagttgtt ttctccacat 120
tggcagtaaa gagccttggc gtcccaggac aactcgag 158

<210> 2324
<211> 151
<212> DNA
<213> Homo sapiens

<400> 2324
gaattcggcc aaagaggcct agttaatttt tctaatttta ccaaagtttg cagcctatac 60
ctcaataaaa cagggatatt ttaaatcaca tacctgcaga caaactggag caatgttatt 120
tttaaagggc atactggagg ttctccctat a 151

<210> 2325
<211> 127
<212> DNA
<213> Homo sapiens

<400> 2325
gaattcggcc aaagaggcct atattactgg tattagtctt agcctaatga acctaattat 60
ttttctttct gtattctttg cttcctcaaa tagcatctgc agcaattgga atgagaaatc 120
cctcgag 127

<210> 2326
<211> 196
<212> DNA
<213> Homo sapiens

<400> 2326
gaattcggcc aaagaggcct acaacactgt gaggtttctg taatatttag cttttatttg 60
gaagcgatag cgtatggcat tttttatgct gtttggttta tattgtctac tgcaggcttc 120
tttgtataag ctttgcctgg gctcaccctc tcctggacac tgttttaaag tgtcaccgct 180
gtccatgcga ctcgag 196

<210> 2327
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2327
gaattcggcc aaagaggcct cggaaggcag gcacacgaag acacaggtat gtcgggaagt 60
gcacacaaac cgttgtcttt cctttttggt taaagaagaa aaactcgag 109

<210> 2328
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2328
gaattcggcc aaagaggcct aatgtttatg tcactaactc atctgaaagt acttgtctta 60
aaagttttta tttttattcc agtgtttgtg gatttttttcc aaaaacctaa gaaaacccaa 120
ctcgag 126

<210> 2329
<211> 265
<212> DNA
<213> Homo sapiens

<400> 2329
gaattcggcc aaagaggcct aatagaaggc cgctgactga gccaccagtc agaactgatc 60
ctggaacagc cacaaaccac caaggattgc cagctgtgga ttcagagata ctggagatgc 120
cacctgaaaa agcagatgga gtagtggagg ggatagatgt aaatggacca aaagcacagc 180
tgatgttgcg gtatccagat ggaaaaaggg aacagatcac tcttccagag caagctaaac 240
tgctagcttt ggagaagcac tcgag 265

<210> 2330
<211> 164
<212> DNA
<213> Homo sapiens

<400> 2330
gaattcggcc aaagaggcct actaataagc caaggaatcg acatatatta ggtgcgtgta 60
ctgtttctaa aaaccacaaa ctaagaatga taaattatca atatagttta gtatttgcta 120
attttactac actcttttgt tatgtatatg taggaagtct cgag 164

<210> 2331
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2331
gaattcggcc aaagaggcct aaaaaaacaa aaaaaaaaca gaaaaaaaag aaagaaataa 60
taggaaaaaa taataatttc tcctaatatg attatttatt atagaatttt atgtctccat 120
gtactcgag 129

<210> 2332
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2332
gaattcggcc aaagaggcct atataatccc aagatcagtg ttatatttta ctggagaagc 60
tattgaagat gatgatgatg attatgatga agaaagctct cgag 104

<210> 2333
<211> 170
<212> DNA
<213> Homo sapiens

<400> 2333
gaattcggcc aaagaggcct actcagttac cttctaacta ataggctggt tcaggagact 60
ctcccagttt ataaatggtt ctcttgggag cctttggaag ctgtattaaa tctttcagtc 120
ttttatttct aatttttctt cttaatctaa atagaggcca gtgtctcgag 170

<210> 2334
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2334
gaattcggcc aaagaggcct agctgttatt gtgatgagtc tttggtttaa catcacagta 60
ttctgtgatg tctttttaac tttttggaaa gaggaactcg ag 102

<210> 2335
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2335
gaattcggcc aaagaggcct acttaaacat aagcgaaacc agtagcaagt atgtgggtca 60
gcttaaaaat tttgattgtt aatgccctat tttctaattt ggcacctctt gatgccgaac 120
tcgag 125

<210> 2336
<211> 416
<212> DNA
<213> Homo sapiens

<400> 2336
gaattcggcc aaagaggcct atccagattc aaatgcagaa actgtgatga ctttgatttt 60
tgtgaaacgt gtttcaagat aggcctcttt ggccgaattc ggccaaagag gcctactctt 120
tactcaccct cactcagcct aaccttgctt ccgattttat taaggaaatc caatcaatca 180
gaagaggttt ctacaattta ctatcacatt tacccaccag ccatcacctc tgccatatat 240
gctcctctcc tattccaatg gctggaatgt ctcagggaag accaagccct tcacttgtac 300
attagatccc agctctctgt cccatccatt atggaagctg cacatcaccc cagtcacaca 360
agagggcact ctgaatgagg aatcttgtaa actactccaa atcaccgctt ctcgag 416

<210> 2337
<211> 112
<212> DNA
<213> Homo sapiens

<400> 2337
gaattcggcc aaagaggcct aaatgagcat gataatttta caaaaaatct tgaaaatctc 60
atgtctacca ttcaagagag ttactgttcc aactggcgat gcccaactcg ag 112

<210> 2338
<211> 127
<212> DNA
<213> Homo sapiens

<400> 2338
gaattcggcc aaagaggcct aaaagacaat gaagccttta ttgagccact acattaaaag 60
tatatattgc tttactgcct tcaataccag tattacatca atgcatgtat cagaaacttc 120
actcgag 127

<210> 2339
<211> 187
<212> DNA
<213> Homo sapiens

<400> 2339
gaattcggcc aaagaggcct atctaaatct gcattataat agctctaaaa tttgttgatt 60
ggtaagaaat tgggcattgc ttggctcttt aaacacatca gtgcttccac attcacctat 120

gtatttatta ttcaaaagtg tcattttaat atttattgct accttctgtg aatgctcagc 180
tctcgag 187

<210> 2340
<211> 191
<212> DNA
<213> Homo sapiens

<400> 2340
gaattcggcc aaagaggcct aggaagagtt cactcatgtt tgcacccgcg gtgatgcgtg 60
cttttcgcaa gaacaagact ctcggctatg gagtccccat gttgttgctg attgttggag 120
gttcttttgg tcttcgtgag ttttctcaaa tccgatatga tgctgtgaag agtaaaatgg 180
atactctcga g 191

<210> 2341
<211> 111
<212> DNA
<213> Homo sapiens

<400> 2341
gaattcggcc aaagaggcct aatgaaattt acagtgatag aacaaaagag gattagtaga 60
aaatacatta ttagaatata aaaaatgtta ttactgagga aatatctcga g 111

<210> 2342
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2342
gaattcggcc aaagaggcct agtaaaacat tggctcaaaa taaagtacac actgatttat 60
tttactgttt gaaatgtttc cttttaaact gatgctcctc gag 103

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<211> 162
<212> DNA
<213> Homo sapiens

<400> 2343
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attgttccgt tttttaattc agcagaattt ttctcctctg ctaatgacaa ggcagtctat 120
attagagact gtcaaaatta tttcttaaga agcaccctcg ag 162

<210> 2344
<211> 169
<212> DNA
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<400> 2344
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tatattccac gaatcctttt tctggatccc agtggcaagg tgcatcctga aatcatcaat 120
gagaatggaa accccagcta caagtatttt tatgtcagtg cccctcgag 169

<210> 2345
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2345
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gagcactcga g 131

<210> 2346
<211> 275
<212> DNA
<213> Homo sapiens

<400> 2346
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gaggcctatt tgtttttgtg aatgaagaat gaaaatttta ttcccattaa gtgcgagctt 120
caattgaggc actcagttta tgaggtctta ctgatgtttc ctctcttagg tgctgtagtt 180
aaaatcttgc tggtctaaaa tggtgaaaac tattgaggta ttcaaatgat aagtacttta 240
taaactgaaa ttgcattgaa aacggagtac tcgag 275

<210> 2347
<211> 119
<212> DNA
<213> Homo sapiens

<400> 2347
gaattcggcc aaagaggcct attttttatc ttttttcttt ttttttgttt aagctatata 60
aaaaggtgag gaagcagttt tgttacctaa tgaaaattat tacactcata atactcgag 119

<210> 2348
<211> 181
<212> DNA
<213> Homo sapiens

<400> 2348
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attttatttt tgctgcacaa cactcgagat aggtggtggg ggaaacaaaa cacacagtct 120
ctggcaagcc ccaccgggaa aggagggctc agaaggcgta gcgggtccgg atatcctcga 180
g 181

<210> 2349
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2349
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taaaggttta atgaagctgt gcccttacta tatgcactca ctcgag 106

<210> 2350
<211> 233
<212> DNA
<213> Homo sapiens

<400> 2350
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cttccatgtc ctcagtgtca agtacttcac tttctggagt taattcagcc cagttttcac 180
ctatagcatg tttattaacc attttcatac acttaaaagc ccagcagctc gag 233

<210> 2351
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2351

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cgatgtctcg tgatctggtg tacccttatc cctgtgacgt ttggccatct cgag 114

<210> 2352
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2352
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tattttatgt taatcttgtc aatgagaggg accagttggt gttgcccaat cagcactcca 120
aggctgtgtg tgcaccagcc agagagcgca cggtggcacg tactcgag 168

<210> 2353
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2353
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tgcaaccact cgag 134

<210> 2354
<211> 163
<212> DNA
<213> Homo sapiens

<400> 2354
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tatttaactg tactgttcag tagtgttaag tcattcgcat tgttgtcaat taatatccag 120
aagttttttc aacttaatga aactaaaaca ttataccctc gag 163

<210> 2355
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2355
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agacttgggg ctttcactta tcataagatg aaaactaatt ttcattgttt cctcgag 117

<210> 2356
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2356
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ttaagaaaac ccctccaaag atcccttata aggccatcgc gcttgccact gtgctgtttt 180
tgattggcgc ctttctcatt attataggcc cccacccact cgag 224

<210> 2357
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2357
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<210> 2358
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2358
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gatctcgag 129

<210> 2359
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2359
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acatactaca aaaacagaat gaaatggatg acctgcctcg ag 102

<210> 2360
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2360
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caactcgag 129

<210> 2361
<211> 145
<212> DNA
<213> Homo sapiens

<400> 2361
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taaattatag tattaccatt atttgtattg ttattgcaca ttctgtgcca tgaagctttt 120
taacatttgc aacagaaccc tcgag 145

<210> 2362
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2362
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agtttctacc ttcaagcaat gaagaatcct aacaatagag attgctttgg tgaccatgat 120
aggaggtcac tcgag 135

<210> 2363
<211> 136
<212> DNA
<213> Homo sapiens

<400> 2363
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ctgcatgttg ctggaggttt gtggaacggg ggtctacggg gtgaaatata cacagagctc 120
tttagcctgc ctcgag 136

<210> 2364
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2364
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gtttatgaac acaaatacat taaactagaa tgcattttag aaataaacta ctcgag 116

<210> 2365
<211> 155
<212> DNA
<213> Homo sapiens

<400> 2365
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tgaagaaact attatttcag atgtgcatac acctgagcga actatggact agacaggtcg 120
tcttgttcac attaccttat caagagtctc tcgag 155

<210> 2366
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2366
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atagatataa ggcatggttt cattgaagtc agtactcgag 100

<210> 2367
<211> 108
<212> DNA
<213> Homo sapiens

<400> 2367
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atggcaggaa gatgtatttg tacaccagac tgccataaag gcctcgag 108

<210> 2368
<211> 131
<212> DNA
<213> Homo sapiens

<400> 2368
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tggcaataag gaaactgttc aaagtagagg cagatcttga tagaaagatg ttaatcacag 120
gctttctcga g 131

<210> 2369
<211> 169
<212> DNA
<213> Homo sapiens

<400> 2369
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gttgttctct actctgtgct cggaaatatc gttcctcttc agcctgctct ctctttccga 120
aggccccacc ggcttcccgg atggagcccg cgccccggtc atcctcgag 169

<210> 2370
<211> 118
<212> DNA

<213> Homo sapiens

<400> 2370
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agccatgttg tgtggtctgt ggacctgctt gcttttttg aatgtgagtc agctcgag 118

<210> 2371
<211> 107
<212> DNA
<213> Homo sapiens

<400> 2371
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aaacaatgat tattgcacat attatacttg tcacactaca tctcgag 107

<210> 2372
<211> 136
<212> DNA
<213> Homo sapiens

<400> 2372
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taaaaagtac aagctattaa aaatcagatt gaaaagtttt gagaaaatgt tatttttact 120
gaaagcaacc ctcgag 136

<210> 2373
<211> 104
<212> DNA
<213> Homo sapiens

<400> 2373
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ttttcaagat gaaaaaactt atagtggtga gggttgcact cgag 104

<210> 2374
<211> 117
<212> DNA
<213> Homo sapiens

<400> 2374
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tgattttgag ttgcaataaa gggaaagacc atgctcatag cagtgccaat actcgag 117

<210> 2375
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2375
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cttaatgggg gttgcatgtc tcctattgtt aatcattgtc agctgcagtg acatgatcca 120
cagtcctctc gag 133

<210> 2376
<211> 529
<212> DNA
<213> Homo sapiens

<400> 2376
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ttctttgatg tcagtattgg cggtcaggaa gttggccgca tgaagatcga gctctttgca 120
gacgttgtgc ctaagacggc cgagaacttt aggcagttct gcaccggaga attcaggaaa 180
gatggggttc caataggata caaaggaagc accttccaca gggtcataaa ggatttcatg 240
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ccatttgcag atgaaaattt taaacttaga cactcagctc caggcctgct ttccatggcg 360
aacagtggtc caagtacaaa tggctgtcag ttctttatca cctgctctaa gtgcgattgg 420
ctggatggga agcatgtggt gtttggaaaa atcatcgatg gacttctagt gatgagaaag 480
attgagaatg ttcccacagg ccccaacaat aagcccaagc aatctcgag 529

<210> 2377
<211> 106
<212> DNA
<213> Homo sapiens

<400> 2377
gaattcggcc aaagaggcct acatcatttg aacttatttt attgatactc attagtgaat 60
aaaattgtgt tgatttttga tgcattacaa cacactttta ctcgag 106

<210> 2378
<211> 112
<212> DNA
<213> Homo sapiens

<400> 2378
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ttgcatttga agccttaaca tgcattgctt taattttgcc caggtgctcg ag 112

<210> 2379
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2379
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ctttaataca atcttaattt tggaattcat gaaggaactc gag 103

<210> 2380
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2380
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atgaaatgtt cagtgtctca ctacagtctg atcgaactcg ag 102

<210> 2381
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2381
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actaaagtat tagaaatagg agtgcaggta aaggcaattc tcgag 105

<210> 2382
<211> 118
<212> DNA
<213> Homo sapiens

<400> 2382

gaattcggcc aaagaggcct agttaatgag gccaattttt ccagcattta taattatttt 60
tttcacttgt taggaagctt ttgttatgta ttttctgtta atagtacccg ttctcgag 118

<210> 2383
<211> 116
<212> DNA
<213> Homo sapiens

<400> 2383
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ttcttaccca ctgcaccatc caaagcagca gcataaactc agagatgatc ctcgag 116

<210> 2384
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2384
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tacttttaaa aaatgaaatt gttcattgct gggatactcg ag 102

<210> 2385
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2385
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tgtttttctg aaaataaaaa tataaacaat gagattggca ctactcgag 109

<210> 2386
<211> 148
<212> DNA
<213> Homo sapiens

<400> 2386
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gtgtgtatat gtgtgtgtgt gtgtgtgtat gaagctggct ttatcagaat tactgggtga 120
tggtatggaa gaaagaaagg ctctcgag 148

<210> 2387
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2387
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tagaactgtt agacacattg cagtatgctg tattgaaagt agaaatactc gag 113

<210> 2388
<211> 189
<212> DNA
<213> Homo sapiens

<400> 2388
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ttgcagatga cgtccagcga gcgcaggaag atcatgtgct cagtgacatt ccacgtcatt 120
gccatcacat gtgtggtctg gtccttgtat gtgctcattg accgtactgc tgaggagaag 180
gggctcgag 189

<210> 2389
<211> 158
<212> DNA
<213> Homo sapiens

<400> 2389
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ttacagttaa atattagtta aaggtcacat gatgtgccac ataaacattt tgggcactat 120
gtaactttta aacttggtct attacatgcg ggctcgag 158

<210> 2390
<211> 129
<212> DNA
<213> Homo sapiens

<400> 2390
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tgtttggttt tttcctgttt ggcaaaggtg tgtttttgtt ttttagattc cagtgaacca 120
atactcgag 129

<210> 2391
<211> 206
<212> DNA
<213> Homo sapiens

<400> 2391
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tcactgtgtc tctagtgaca ctagagatct ctagcgttca cctgacttgg ctgaattggt 120
ggtgccaggc agagtccctg gcagtagagc cacctcagat gagcctggta gctgcaccta 180
cctccccttc aactaacaag ctcgag 206

<210> 2392
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2392
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ttaaattcta tgatactgaa aataaaggca ttcatcctcg ag 102

<210> 2393
<211> 133
<212> DNA
<213> Homo sapiens

<400> 2393
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gacattaaag accttactgt ttgtgagcca ccaaaaccac agtgttcttt gcctcaagac 120
ccagcaactc gag 133

<210> 2394
<211> 122
<212> DNA
<213> Homo sapiens

<400> 2394
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gaaatacaca cctacatgga aatgtttcaa cgtgcgcaag cgttgcgaca gcgggactcg 120
ag 122

<210> 2395
<211> 109
<212> DNA
<213> Homo sapiens

<400> 2395
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tgatcttaac aatattttgt aaaatgatgc ttcccccttc gccctcgag 109

<210> 2396
<211> 135
<212> DNA
<213> Homo sapiens

<400> 2396
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gtcttatcac tgccattcta tgacacagga aataccattt gggaaactga gtttctattt 120
gaaaaaggac tcgag 135

<210> 2397
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2397
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ccaaactaga gtacgtaaca ttgaaaaatg aggctgctcg ag 102

<210> 2398
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2398
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attctcttat aaaaaatgaa agtggagttt aaggtatatc tcgag 105

<210> 2399
<211> 163
<212> DNA
<213> Homo sapiens

<400> 2399
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ctttctttta ttatccccag taggagtgac ttgtaattct catatgttag aaaggcaggt 120
ctcctggttg aagaaaagat ccacccaagc aagtcagctc gag 163

<210> 2400
<211> 99
<212> DNA
<213> Homo sapiens

<400> 2400
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cattttctag ttcatatgaa aataaccata gtactcgag 99

<210> 2401
<211> 152
<212> DNA
<213> Homo sapiens

<400> 2401
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tgcatacaca agtggaaatt tgtattgcac tgattcttgc aagtcctttt gaaaacacag 120
aaaatgccac aattaccgat ccaagactcg ag 152

<210> 2402
<211> 167
<212> DNA
<213> Homo sapiens

<400> 2402
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ggttttgccc ctgtagtgac cgggcagcaa tgttatctgt ccttcattct tgcatgtttt 120
tggaaattgc ttttgctttt acttttggtc gtcaaggcaa tctcgag 167

<210> 2403
<211> 162
<212> DNA
<213> Homo sapiens

<400> 2403
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acttgtttta acataaataa agagtatgca ccacgtctcg ag 162

<210> 2404
<211> 103
<212> DNA
<213> Homo sapiens

<400> 2404
gaattcggcc aaagaggcct agcaaaatat cttccaaaca gcagaaaata acatacttct 60
gggaatgaaa ctacagtgta ttcatatgac ccatatactc gag 103

<210> 2405
<211> 125
<212> DNA
<213> Homo sapiens

<400> 2405
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gttttttgtt tgtttgtttt tgtttttttt ttgagacgga gtctcaggtg acccaccccc 120
tcgag 125

<210> 2406
<211> 113
<212> DNA
<213> Homo sapiens

<400> 2406
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<210> 2407
<211> 207
<212> DNA
<213> Homo sapiens

<400> 2407
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ctgatctctc ttcaccagac aaaagaaaag tacacaattt ctaaaatggt ccattttttta 120
ttgatgagta tttatactgc cttctgcctt ccttcttttc ctccctattt aaaaactttt 180
ccgtttgtaa aaaccacaac actcgag 207

<210> 2408
<211> 105
<212> DNA
<213> Homo sapiens

<400> 2408
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aggcatcaca tgagcatgaa gataaaagtc ctgaaactac tcgag 105

<210> 2409
<211> 194
<212> DNA
<213> Homo sapiens

<400> 2409
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gagctgtcca atgtccttag gctgttttcc aaatgagata ccaaaagcta gttctccatc 180
gggtgccgct cgag 194

<210> 2410
<211> 114
<212> DNA
<213> Homo sapiens

<400> 2410
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atgatttttg gtggaatgtt ttatcaattt ttgaaaattg cctttgcgct cgag 114

<210> 2411
<211> 268
<212> DNA
<213> Homo sapiens

<400> 2411
gaattcggcc aaagaggcct aagaagtgct tatagaaaag atggctaata ttaacctaaa 60
agaaataacc ttaatagtag gtgtggttac tgcctgctat tggaacagcc tcttttgtgg 120
ttttgttttt gatgatgttt cagcaatact ggataacaaa gacttgcatc catctacacc 180
tttaaaaact ttatttcaaa atgacttctg gggaacccct atgtctgagg agagaagcca 240
caagtcttac cgtccccacc acctcgag 268

<210> 2412
<211> 126
<212> DNA
<213> Homo sapiens

<400> 2412
gaattcggcc aaagaggcct aggaaaatgt tggggcgctt gagccgcctt tgcagtcgga 60
ggggcagcct aggaggagcc cagggaggcg gtggcttctc tccaggtaca tagaaggccg 120
ctcgag 126

<210> 2413
<211> 260
<212> DNA
<213> Homo sapiens

<400> 2413
gaattcggcc aaagaggcct acgaggatct tggtttgaca aactagcaat ttccaaacgt 60
tcctgcttag ccatttcttt cctttttttc tcttctttta tctcttcttt ccttctctga 120
atctcatgca ggatttcacg ttgctcctgc tcttctttcc gcttggcctc caacagcgcc 180
tcgagaagtg gggaaactca acggtgtacg agtggaggac agggacagag ccctctgtgg 240
tggaacgacc ccacctcgag 260

<210> 2414
<211> 663
<212> DNA
<213> Homo sapiens

<400> 2414
gaattcggcc aaagaggcct agttaaatta atccagattg ctgagagggc acggcaaggt 60
cgcctaaggg ctttattcat gaagcaaatc tatctgcaag aatatagagc aaagcaatcc 120
aagatgcttg gcaagaaagt gacagatacc tgggctgctg cactccgcat tcagaaggtt 180
tggcgacgtt tccatcaacg taaggaaact gaaaaactga gagaagagga gatgatcttc 240
ctgggtatga atccacctcc tctctttaat gaagtcagtg ctacagtaat ccaggctgaa 300
aaggtggacc gcctgcggaa tgaggtgcag ataaagcatg aagaggacta cagggaagcc 360
ctggttacca tcaagaatga cctaaagttg atagaaggcg tggatatcaa ggagaaccct 420
caagaccaga tccggcattg gttcatcgaa tgcagaaatt taaccgggac atttcctgac 480
taccctgacg ttgaagaagg agggtcagct attatttttt ctgacaagac catacaacag 540
gttattgagg atatcatagc aaaccaagag gaagaagaaa aaaaacaaaa agaagaagaa 600
gaaaaaggaa aaacaaccca agaaagccaa aaaacaaaag aaaggaacaa aggagtactc 660
gag 663

<210> 2415
<211> 585
<212> DNA
<213> Homo sapiens

<400> 2415
gaattcggcc aaagaggcct aatcgcttgc acctgggaga tggagattgc gattgcagtg 60
agccgagatt atgccactgc actccagcct tggcgacaga gtgagactct gtctcaaaga 120
aaaaaaaaaa aagagtccta tcttgcgaaa cagagcaagg tcatggctcc agtggcagaa 180
gaaaggacgg tcagtggcag gaaataggtg tgaacggaac agtcaccagg gcacccagac 240
acccccaggg aaatggcagg tgcagcttta tttcccgcat tatggagaga gggaaaaaaa 300
gtgtcagtct cttattaggg agagtaatta catcctttat aactgtgtac ctaattagtt 360
tgtttctaac catcctcatc atgaacaaac acattaaata attggagaga agaggagata 420
agaaagagaa ttaacatttg agaagagact accatgtgtc agacaagcac tgtgctcggc 480
atccttctgt atgttagctc tctaaccctc actaaaacaa acacacaaac caaagatgat 540
tcagtagttg atattttatc agctacatct cccagtgcac tcgag 585

<210> 2416
<211> 799
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (770)

<400> 2416
gaattcggcc aaagaggcct aaaatgattt caaataactt ttaatcaatt aaaccaataa 60
ttttaatttt aaattctgct cctctgaacc atagaggttt gtcagaggta cctcttggcc 120
tgccaggagg caaagtgaaa gggagcagag aaggatggga ttgagggtag gtctctggat 180
cccctacttt tctgaaacag cagctttgat tccatgtttt tatatatcca tcttctgtat 240
gtgatttcac ttgaagaaag ggtctcaaag agtttgaaaa ccattgattg attatgccac 300
cctttattgt catcatcatc atcagaccat cacatctaat acgaatatat gtaaaacttt 360
ctatactaag tgcttaactg tgaaacctat gtgcttttcc ttgaatactg catttaaaat 420

aatcagtaaa cacttaaaag tgtatctgta cctttctgcc aatatttctg tagttttgta 480
aattgtggtt tgtgttgcgt gcttatttat tgtcttgtgc ttcaagtctt ttcaggagga 540
catgggctaa atacaatttt taaagctatc tcaaaatgtt ttggaaaatt tgagggtaag 600
ataggttttg aaaaggtctg aaaaatataa tagagtctta aaaatggagt aattgcgtgt 660
tgtaacatga aagaaggcaa tgtctggaaa aattcaaaaa tagcaattta gcggaaatag 720
gaagagagga aggtaagagt gttagggata aatgctcaaa agatttctcn gtttttttaa 780
aatatgcaac tttctcgag 799

<210> 2417
<211> 237
<212> DNA
<213> Homo sapiens

<400> 2417
gaattcgcgg ccgcgtcgac gtgagtcttt tgtagaaacc tggccttttg tgttggatat 60
atttaactag agacacttag gaagcatcca ggcttagata tcaggtgtgc agttgtgcgt 120
gtaacagggg atcttgcagc agaaatcaga cttcaggcta tacatttgga ggtcttcatc 180
acgtaggtag tatttaaagt taggagtgtg agcaagatga ggagggggag tctcgag 237

<210> 2418
<211> 480
<212> DNA
<213> Homo sapiens

<400> 2418
gaattcggcc aaagaggcct agattatctc caggtggatc actggcagac gcatgggcac 60
atcaagaagg cactcatccg aaagacagaa atgtagaaaa actacaagtc ctgttaaatt 120
gcatgacaga gatttactat cagttcaaaa aagacaaagc agaacgtaga ttagcttata 180
atgaagaaca aatccacaaa tttgataagc aaaaactgta ttaccatgcc acaaaagcta 240
tgacgcactt tacagatgaa tgtgttaaaa agtatgaggc atttttgaat aagtcagaag 300
aatggataag aaagatgctt catcttagga aacagttatt atcgctgact aatcagtgtt 360
ttgatattga agaagaagta tcaaaatatc aagaatatac taatgagtta caagaaactc 420
tgcctcagaa aatgtttaca gcttccagtg gaatcaaaca taccatgacc ccaactcgag 480

<210> 2419
<211> 188
<212> DNA
<213> Homo sapiens

<400> 2419
gaattcgcgg ccgcgtcgac tagacctgct ctagtctgca tcattccttc ctctacccctc 60
actctggata aattatttta ttagtttctt atatgtcttt agaaagtttt tatattctta 120
acctttttgg ttttttattt ctgttttttt tagagacacg gtctcactct gttgtccagg 180
ctctcgag 188

<210> 2420
<211> 205
<212> DNA
<213> Homo sapiens

<400> 2420
gaattcgcgg ccgcgtcgac tgttgagttc cttatatagt ctaggtatta accccttaga 60
tgcatagttt gcaaatattg tcttccattc tgtaacttgc ctcttcattt tgttgactgt 120
ctcctttgct gtgaagaagc tttttaattt gatgcaatcc tgtttgtcta tttttgcttt 180
ggttgcctgt gcccagtcgc tcgag 205

<210> 2421
<211> 266
<212> DNA
<213> Homo sapiens

<400> 2421
gaattcgcgg ccgcgtcgac cccaggtaga gcaagaagat ggtgtttctg cccctcaaat 60
ggtcccttgc aatcatgtca tttctacttt cctcactgtt ggctctctta actgtgtcca 120
ctccttcatg gtgtcagagc actgaagcat ctcccaaacg tagtgatggg acaccatttc 180
cttggaataa aatacgactt cctgagtacg tcatcccagt tcattatgat ctcttgatcc 240
atgcaaacct taccacgcag ctcgag 266

<210> 2422
<211> 199
<212> DNA
<213> Homo sapiens

<400> 2422
gaattcgcgg ccgcgtcgac taaaccttca tctgtctttc caacccatct accattcact 60
catcgactga ttcatccatt cagtatctag tcctgtatct atctgtccat ccaacttcca 120
atccactcac catttatcag tcaagatgct ccccccaccc aataactacc cattcacagc 180
ttggaaccga aagctcgag 199

<210> 2423
<211> 247
<212> DNA
<213> Homo sapiens

<400> 2423
gaattcgcgg ccgcgtcgac acagtacaca gacgaccaca ccctcagcat cttgtccaga 60
aagcaattca gttaatcagg tagaagatat ggaaatagaa acctcagaag ttaagaaagt 120
tacttcatca cctattactt ctgaagagga atctaatctc agtaatgact ttattgatga 180
aaatggtctg cccatcaaca aaaatgaaaa tgtcaatgga gaatctaaaa gaaaaaccgt 240
actcgag 247

<210> 2424
<211> 353
<212> DNA
<213> Homo sapiens

<400> 2424
gaattcgcgg ccgcgtcgac agcatggggg gctggagttc cggttttctt tgttttttct 60
ctttattcgt cctttctcaa agatgggata ctgatcagaa ttgctctgta tatgcttggg 120
actggatgga aagactttgg agcagctgtg gggggtgggg ggacaccgac aaccaaacag 180
acgtgctggc tccagtcctg tttttacttt caaaaaccaa caagcccgac agtggagcct 240
gtcccctccc aggagggtgc tcatggcccc actcacctca tcaccccacg gaaacctttg 300
tgtcttgccc tggaagacac ccgaattctt tgtacattga catgcccctc gag 353

<210> 2425
<211> 249
<212> DNA
<213> Homo sapiens

<400> 2425
gaattcgcgg ccgcgtcgac ctctgttgaa aggcaacaga ttcagtaata cagtgctatt 60
ttcaagtgta gcatcattct ttctagtttc tgcctacttt ttcctcaatc ccttcaggtc 120
ttctctgtgc ctactggttt atcagtcatc caattatttg ggcaaagttt atacctagaa 180
tttttgtttc acccctctgg ttctctgact gccatgtttt tcccatttaa atttctagct 240
gtcctcgag 249

<210> 2426
<211> 195
<212> DNA
<213> Homo sapiens

<400> 2426
gaattcgcgg ccgcgtcgac gttttttttt gttctaagaa agtttatcct gtatttctat 60
ttagaagttt tagagtgtta gcttttagat taaaaaatgg tttacttttt tattttgaga 120
tggagtttca ctcttgttgc ccaggctgga gtgcaatggt gcagtctcgg ctcaccacaa 180
ccttcatctc tcgag 195

<210> 2427
<211> 175
<212> DNA
<213> Homo sapiens

<400> 2427
gaattcgcgg ccgcgtcgac cctaaaccgt cgatcgtagt tcaaattgga ttgtggttta 60
ttggaggcag cttggctata gggttatttt gcagtgcagt ctgctgattc atcaggtcac 120
tctgggccca agccactgga tccagatgaa atgttctttc caggcagcgc tcgag 175

<210> 2428
<211> 168
<212> DNA
<213> Homo sapiens

<400> 2428
gaattcgcgg ccgcgtcgac taaatattag gagttaaaaa aataaaaaca atttgtcttc 60
aacattgata cgtgttatat tctcatcatg ctagttgatg tttttaacta tggtacaata 120
catacgattt ttgtgttgac ttatataaca tttaacccag gtctcgag 168

<210> 2429
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2429
gaattcgcgg ccgcgtcgac cttaataaac aatagtatag taaaaacata atttttatat 60
gcactggaaa ccaaaaaatg tgtgtaactc actttattgc gatattcact ttattgcaat 120
attcacttta ttgcagtgat ctggaaccaa acctgcaata tctgcatggt atgcctatat 180
atgtatgtct agatttaact tatgaaatgc caggttctct cgag 224

<210> 2430
<211> 315
<212> DNA
<213> Homo sapiens

<400> 2430
gaattcgcgg ccgcgtcgac catattttta aaagtctttc tcctacctac atcctcttct 60
attctattat ccccacatcc agttttatta attacttttt tctttctttc tggttttttt 120
tttgtagaga tgaggtctcg ctatgtacaa gcatgcacca ttgcacccgg cttagtttta 180
ttagtttcta atatatcctt tcagtgtttc tttctgcaaa tccaaataca tagtcttatt 240
tccccctttc ttacacaaaa agaagcaaac tatacatgct gttttgtcgt tttgctttat 300
tcacacaatc tcgag 315

<210> 2431
<211> 214
<212> DNA
<213> Homo sapiens

<400> 2431
gaattcgcgg ccgcgtcgac aaaaataaaa tattttaaaa agcaggatgc aatattttat 60
gcacactatg tgtatttatt tgcccatact ctttcagctg gaagctatag aaacccaaat 120
caaattgact tctgcaaaaa taacaaaaat caagaaattt cttggctcac aggaacctgt 180
aaagcctgga ggaaagggtc tacaacagct cgag 214

<210> 2432
<211> 193
<212> DNA
<213> Homo sapiens

<400> 2432
gaattcgcgg ccgcgtcgac gaagaaattt aggagcttgc cacacccagt catctcaaca 60
acatccccaa atgcattctt accatgctgg agatcccaaa gttctcagag gctcttgtgt 120
tagaaacctg ggaccaagac caaatattaa aacaaaagat gttcctgtca catctatcac 180
tgagggtctc gag 193

<210> 2433
<211> 179
<212> DNA
<213> Homo sapiens

<400> 2433
gaattcgcgg ccgcgtcgac taaaaaaaaa aaagtacaat ttggtgcact ttggcatatc 60
ttaatatcca tgaaaccatc aagattatga ttatatccat catccctaga agtttcttcc 120
tactgctttg tattcccttt cttaccctcc tcttgtatac ataccccccc atcctcgag 179

<210> 2434
<211> 235
<212> DNA
<213> Homo sapiens

<400> 2434
gaattcgcgg ccgcgtcgac ctttttctaa agaataattt gttgtgggga cctccctcgc 60
attataggta agaattgatt gtgttggagt ttttgctgtg ttttatacca cttttctacc 120
tgtgtttata gtgagagagt tggttctgct tttgttcagt ttgccacgtt gctagaacca 180
gaagtcagtt ttttttcctt tgaatttgtt ttgaaaattt gtgatgcagc tcgag 235

<210> 2435
<211> 373
<212> DNA
<213> Homo sapiens

<400> 2435
gaattcgcgg ccgcgtcgac cgaaatggcg ccctccggga gtcttgcagt tcccctggca 60
gtcctggtgc tgttgctttg ggtgctcccc tggacgcacg ggcggcggag caacgttcgc 120
gtcatcacgg acgagaactg gagagaactg ctggaaggag actggatgat agaattttat 180
gccccgtggt gccctgcttg tcaaaatctt caaccggaat gggaaagttt tgctgaatgg 240
ggagaagatc ttgaggttaa tattgcgaaa gtagatgtca cagagcagcc aggactgagt 300
ggacggttta tcataactgc tcttcctact atttatcatt gtaaagatgg tgaatttagg 360
cgctatcctc gag 373

<210> 2436
<211> 155
<212> DNA
<213> Homo sapiens

<400> 2436
gaattcgcgg ccgcgtcgac tcaggctaag cctcagcttt gctctttgtt ttttatggta 60
ttacttcagt aattattcca aagttctatt cattcatgct tgttttgttt tggattttag 120
taaggacagt cctgtgtgaa ggcgcgtacc tcgag 155

<210> 2437
<211> 206
<212> DNA
<213> Homo sapiens

<400> 2437
gaattcgcgg ccgcgtcgac gagatacttt cctaaaaagg aaaaataaaa aacaaaatgg 60
tgccactttg ggttgaagct actttgttag gcttgaattc atttatatgt cttttgattc 120
ttaaaaaaac aaaaaacatt ccattagaag caccagtttt tttgctcaga ctttgtggat 180
cagactctac actcaacaca ctcgag 206

<210> 2438
<211> 231
<212> DNA
<213> Homo sapiens

<400> 2438
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgg actctaacac ttgttaaact 60
tatcccattt tgcttatctt aggtccccat ttatttatac agtatatttt gctgaacctg 120
ttttttttatt ttgatttttt ctttttgaa acagaggctc tctctgttgc ccaggctgga 180
gtgcagtggc atgacctcag ctcactacaa cctccgcctc ccgcactcga g 231

<210> 2439
<211> 247
<212> DNA
<213> Homo sapiens

<400> 2439
gaattcgcgg ccgcgtcgac attttatgct tctccttttt tcccсgcaac ttgaactgtg 60
actctttcag atatttctta aatctgtatg agtcattttt taagcttagg gatttgatat 120
gtattaatgt cccctttgtc ttctgtagat tttagcattt tattacctct taagaaactc 180
tgggcccaga ctttcagtca tatttcttat tcctatggta cagttctcac ttaaaggctt 240
actcgag 247

<210> 2440
<211> 195
<212> DNA
<213> Homo sapiens

<400> 2440
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacccac ctactatact 60
atgagtctgt atttgtgttg tttttttttt cttcgaaaac catctgtaac cattgttttt 120
atcattttat tttatttttt aagttttatt tatttttttg agacagggtc ttgctctgtt 180
accccggctc tcgag 195

<210> 2441
<211> 222
<212> DNA
<213> Homo sapiens

<400> 2441
gaattcgcgg ccgcgtcgac gagggatttg gggtggtgag tgggaaggct gtgtctccgg 60
aagaagaaat atacgtcccc acctcactct aattaaacct gcttttccag cgcgataaat 120
attcaagata acttttggtt tgcatttcaa taacaaagtc ttgcaccact atcttcagtt 180
taaaaaaaaa gtttaatgtt tgctctacgt ttctgcctcg ag 222

<210> 2442
<211> 266
<212> DNA
<213> Homo sapiens

<400> 2442
gaattcgcgg ccgcgtcgac cacagtgaaa catatacata agcctataaa aaaagatttg 60
tgcaatttga aagcctgtta attttttatg tagacatacc tacacacgaa agggttaaat 120
tcacagcctt actagttcct tgcttccagt atttcaattg gtctcctccc ctcattatta 180

ttattactac tagtactatt atttttgcac atagttaact gcccttcaat atgattctta 240
aaaagtgctg tttctgtggt ctcgag 266

<210> 2443
<211> 220
<212> DNA
<213> Homo sapiens

<400> 2443
gaattcgcgg ccgcgtcgac gcagtggatt gatgatgctg ttgaaatttg ttatgtcctt 60
tctgatttct gtctggtggg tctatccatt tctggccagt tgcactctta aggctggtgg 120
gttgtccgtt gtcaactcag caaccctcca tttcccttct caaagcagaa agagaaacca 180
ggttctatgt ttctccagat cctttcccat atctctcgag 220

<210> 2444
<211> 265
<212> DNA
<213> Homo sapiens

<400> 2444
gaattcgcgg ccgcgtcgac cacagctcta gcacatgtat tgttaaaagt ggagttacta 60
agttttaggg tacatgtatt ttccactgta ctagataaca cccaattgat ttcacagaaa 120
taatttatat atcaattttt tattaagtcc ctttgtcatg tgttacaagc ttttttttt 180
tttagtttgt cttttggctt tgtttatggt gcttaaaaat tgtaaccaaa ttcaccaatt 240
aaaaaaaatt gtggccagac tcgag 265

<210> 2445
<211> 130
<212> DNA
<213> Homo sapiens

<400> 2445
gaattcgcgg ccgcgtcgac ggtgtagtgt atagtataac gagaaaggag tgtttatcag 60
aatttttta catacaggta ttatacctga ggcaataatg aaatggcatc taacagctcc 120
ccttctcgag 130

<210> 2446
<211> 218
<212> DNA
<213> Homo sapiens

<400> 2446
gaattcgcgg ccgcgtcgac gccttccccc tgtgaattta tatgaagaac ttcacagtgg 60
caggtctaaa cacaacagca gaccattaga gtagatctaa caggacaaaa gaaaatacaa 120
agagaagcaa gcccagtggt aacagaaaca aggaaaaaac accaggaatg ctgtttacct 180
tgagcttttt aaagaacttt tatttccatt tactcgag 218

<210> 2447
<211> 292
<212> DNA
<213> Homo sapiens

<400> 2447
gaattcgcgg ccgcgtcgac cgtcgattga ttctagacct gccttctcat tcttcatttt 60
cgataagcaa tctaggtctt gaattgcttc atgtgtttta atgttggtaa acattcctgt 120
aaacctgatt atccaactgt tttctatgga tttctatctg tatgtctggg ttgtttttg 180
tttatttgat tttttgagac agggtcttgc tctgccgctc agggtggagt acagtggcat 240
gatcttggct cactgcaacc tccgcctccc gggctcaagc aatccactcg ag 292

<210> 2448

<211> 155
<212> DNA
<213> Homo sapiens

<400> 2448
gaattcgcgg ccgcgtcgac accagggcaa catttcttga attcttttcg aagatcaaaa 60
aaggaataga agcattcagg taatagtaca ttcttcttgg aagcctcagg atgcaggatt 120
tgcctgacat gaagctgccc atcagtacac tcgag 155

<210> 2449
<211> 452
<212> DNA
<213> Homo sapiens

<400> 2449
gaattcgcgg ccgcgtcgac atggacacaa gttcagtggg aggattagaa ttgactgatc 60
agactcctgt tttattaggg agtacggcca tggcaactag tctcacgaat gtaggaaact 120
catttagtgg tccagctaat cctttagtgt ctagatctaa taagtttcag aactcgtcag 180
tggaagatga tgatgatgtt gtttttatcg aacctgtaca acctccccca ccttctgtac 240
cagtggtagc tgatcaaaga accataacat ttacatcatc aaaaaatgaa gaactacaag 300
gaaatgattc caaaattact ccttcctcaa aagagttggc atctcagaag ggaagtgtaa 360
gtgagacaat tgtcattgat gatgaagagg acatggaaac aaatcaaggg caagagaaaa 420
attcctccaa ttttattgaa cgaaacctcg ag 452

<210> 2450
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2450
gaattcgcgg ccgcgtcgac ttaaatagat aatgctttta aaatatttaa tcagcatctt 60
attctataag agtagatcat tatgtccccc atccctcgag 100

<210> 2451
<211> 134
<212> DNA
<213> Homo sapiens

<400> 2451
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt cttgcctcga gtgttggtac 60
tgtatagaga gcagagtagt aatcaccaca ctgggtatcc aatggcaatg aggtcatttt 120
cccagttcct cgag 134

<210> 2452
<211> 229
<212> DNA
<213> Homo sapiens

<400> 2452
gaattcgcgg ccgcgtcgac aaatgatatt aactggttac atgaatgggc ttaaaagtct 60
aatggtttac attattttct ttaagaagtc tattttttat ttatttattt ttatttattt 120
gagaccctgt ctcaataata ataataataa taatattatt ataataggtg cctatgcaca 180
gggaaccagg gaagactttg aagaggaagt acttacacgt agactcgag 229

<210> 2453
<211> 237
<212> DNA
<213> Homo sapiens

<400> 2453

gaattcgcgg ccgcgtcgac tctgtatcaa ggtatcaaac aagacctaag agattgaagg 60
tcctagtggt ggtattaaat ttttgcatat aaattaatga ccatgcaatg tttcacagcc 120
atttttctct tcctttctaa cagccttgtt agatactgta tttttgagaa tatagagaca 180
gaaagagaag ttaataaccc attcagagtc tggtctaaaa tccaaggctc cctcgag 237

<210> 2454
<211> 150
<212> DNA
<213> Homo sapiens

<400> 2454
gaattcgcgg ccgcgtcgac ttctgcttta ttttgtttta tatgacattg atgatgtcca 60
tctatgttgg cccatataat tcttatcaat tattttaaat gctgtttagc attgtactat 120
ataaaaatat caaaacacag ctccctcgag 150

<210> 2455
<211> 259
<212> DNA
<213> Homo sapiens

<400> 2455
gaattcgcgg ccgcgtcgac acaagaaata tcagtcattg gtttatccag accagtcttt 60
catttccagt gttataggcc aaagcaaaca gacttcccaa catcaaatag tctcacgagc 120
tgaaatggca ttccttgctt gtaggcatgt ggtagtaaca ctcctaggtg aaagaattgg 180
atcaagggtg acaatggcgg ccaggaaatg tctattatgc atggggtgtt tccttcttct 240
tgctgccgtc ttcctcgag 259

<210> 2456
<211> 202
<212> DNA
<213> Homo sapiens

<400> 2456
gaattcgcgg ccgcgtcgac tggggaattt ccttaattct tccagtcctt ttattgagtt 60
ttcatttctg ttcttgtatt ttaaacttct aatgagctct ttttcctctg aatgtttgtt 120
gtggatatta atgattttta gaacatcttt cttcttgttg catactgttt atttggcaag 180
ttgcttcccc caacccctcg ag 202

<210> 2457
<211> 269
<212> DNA
<213> Homo sapiens

<400> 2457
gaattcgcgg ccgcgtcgac gaaaattata gaaaatccaa atatcctggc tggggtgaga 60
gtctgtaagc tagccagaga aaacagctaa ggctaagaaa ataaaatata ggagaaaatt 120
ctagaaaatc cagatatcct ggctggggtg agagtctgta agctagccag agaaaagagc 180
tgaggcgaag acaataaaat ataggagaaa attctagaaa aatgaaaatt ggtttattgt 240
cccagatctg taccсttctc cccctcgag 269

<210> 2458
<211> 233
<212> DNA
<213> Homo sapiens

<400> 2458
gaattcgcgg ccgcgtcgac cactgatgct gaagtactat gagccttcgg aacttgtgga 60
gagactacaa agttttggtt gttatggtcc ctttagttgg gctcatacat ttggggtggt 120
acagaatcaa aagcagccct gttttccaaa tacctaaaaa cgacgacatt cctgagcaag 180
atagtctggg actttcaaat cttcagaaga gccaaatcca gggacgactc gag 233

<210> 2459
<211> 283
<212> DNA
<213> Homo sapiens

<400> 2459
gaattcgcgg ccgcgtcgac cctaaaccgt tgattgaagc cagtgaagtt gtgcttttcc 60
tctacttcta cttcctctcc ccgacctttt tctgcccagt gtaggtgtat tcttaaattc 120
agacagggga agattctttc acatatcact cagttacctc ccaatctggg ggagtttttc 180
ttacaacttg ataccagata ccattaattt tacattcctg aataaaggcc tagtacccac 240
gcatatttca accatgcata tatcaagttc aaccgcgctc gag 283

<210> 2460
<211> 274
<212> DNA
<213> Homo sapiens

<400> 2460
gaattcgcgg ccgcgtcgac tatataaggg ccaaaagtac ttaactttta aaagttagca 60
atataatctc ttcttgctta taaggtcaag tcttttgtga tagccttact agcaataata 120
gaaaattgaa aaaaagcatt ttagttcccg tgtttaaaaa tatttcttgt aagtgttggt 180
attgcaaatg aattattacc aaatgttaat aatctattat gtcttgtttt ttaaagtgaa 240
tgaattttta gcttttgagg gcccccatct cgag 274

<210> 2461
<211> 159
<212> DNA
<213> Homo sapiens

<400> 2461
gaattcgcgg ccgcgtcgac ttttgtctgg gttgtcacat ttatgtgtgt agggttgtta 60
cgttatcctt ttgagtctgc agagtctatg ttgctatccc ctattttatt cccggtatta 120
ggtatttgta tcctctctct tttttgtgtt agtctcgag 159

<210> 2462
<211> 196
<212> DNA
<213> Homo sapiens

<400> 2462
gaattcgcgg ccgcgtcgac aaaagttttt aggccagtgc aaattatgca gtagaacttg 60
tgttgcaaaa ggaattataa cccatacttt aaaaatgctt aatccctcat attcaatttc 120
atcaagcctt gtatacttct gcttaaatgt aattcaatcc ttggttgtta tggcaaacag 180
aaacccaacg ctcgag 196

<210> 2463
<211> 266
<212> DNA
<213> Homo sapiens

<400> 2463
gaattcgcgg ccgcgtcgac agactgcgaa ggagagttat ttctgattca aatttttat 60
ttctggattt tcccatttgg ctctttttaa tagtttctgt gtattcactg aagttcccca 120
cctctccatg catgttgtcc acattttcca gtaaattctt tagcattttt atcattattg 180
tgaagtcccc gtctaatcta ttatctggac agtctctgag tatgtttcca ttgactgttt 240
cgtctcatgt agatcacgta ctcgag 266

<210> 2464
<211> 619
<212> DNA

<213> Homo sapiens

<400> 2464
gaattcgcgg ccgcgtcgac tgatggaact acatgaaact atggcatcct tacagagtcg 60
cctgcggaga gcagagctac agcgaatgga agcccagggt gagcgagagt tacttcaggc 120
agccaaggag aacctgacag cccaggtgga acacctgcaa gcagctgtcg tagaagccag 180
ggctcaggca agtgctgctg gcatcctgga agaagacctg agaacggctc gctcagcact 240
gaagctgaaa aatgaggaag tagagagtga gcgtgagaga gcccaggctc tgcaagagca 300
gggcgaactg aaggtggccc aagggaaggc tctgcaagag aatttggccc tcctgaccca 360
gaccctagct gaaagagaag aggaggtgga gactctgcgg ggacaaatcc aggaactgga 420
gaagcaacgg gaaatgcaga aggctgcttt ggaattgctg tctctggacc tgaagaagag 480
gaaccaagag gtagatctgc agcaagaaca gattcaggag ctagagaagt gtaggtctgt 540
tttagagcat ctgcccatgg ccgtccagga gcgagagcag aagctgactg tgcagaggga 600
gcagatcaga gagctcgag 619

<210> 2465
<211> 202
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (44)

<400> 2465
gaattcgcgg ccgcgtcgac agaagtaaaa gggtgttaag cttnttttaa atttttaaaa 60
tatgaaggaa attttttttt ttttaaaggc agggtctcat ttgttaccca ggctctggag 120
tgcagtggtg ctattacagc tcactgcacc cttgacctgc caggctcaag tgatcctcct 180
gcctcagctc cccaccctcg ag 202

<210> 2466
<211> 263
<212> DNA
<213> Homo sapiens

<400> 2466
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagacctgc ctctcagtat 60
cccccggaag tcattattat catttgccat ctgaatccat tataccctgt ttactttcaa 120
tttttatgtt ttttactttt atattttttt ggagacagta tctcactctg ttgcccagac 180
tggaatgcag tggcatgatc atagctccct gcagccttga actcttgggc tcaagtaatc 240
cttccactcc aggccccctc gag 263

<210> 2467
<211> 249
<212> DNA
<213> Homo sapiens

<400> 2467
gaattcgcgg ccgcgtcgac cgattgaatt ctagacctgc ctcgagtgct ccaacaacca 60
tcagttatgg cctatctgct tttctccttc ctgtattttt tttttcttga gacaggatct 120
cactttgtca cccatgctgg agtgcagtgg tgtgatcact gcttactgtg tcccttcaac 180
ctcccgggct caagagatcc tcccatctta gctttccaag tagctaggac tacagacgca 240
cacctcgag 249

<210> 2468
<211> 240
<212> DNA
<213> Homo sapiens

<400> 2468

gaattcgcgg ccgcgtcgac aacggactga aagacaaatt aatcttggtg aaaggatttt 60
tcatctctta tttctatttg ccagtgttag tcagtgttct gctggcttag attattacct 120
ttttctggtt ccttactgtg ttttattctg atgggtccta gaaatccctc tcctgaccac 180
ttgtcagaat cagaaagtga ggaagaagaa aatattagtt acctaaatga gagtctcgag 240

<210> 2469
<211> 246
<212> DNA
<213> Homo sapiens

<400> 2469
gaattcgcgg ccgcgtcgac ggacataagg ggaacctagg tgaaggatag atgggaatct 60
tttgcctatt ttctgtaact ttaaaatttt ttcacaataa aaatgaagag agtatgtttg 120
cttagtattg tgtatacact gcaacagttt agtattcaag aatatataaa atccccactt 180
agccaacctt ttcaggatgt gcccgccctg cccaatacac ttttatattc tagccaaaaa 240
ctcgag 246

<210> 2470
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2470
gaattcgcgg ccgcgtcgac attatcttta atatatttga cattgaacat ttgtttgtta 60
aaccaccaaa aagtttcaaa caagagaaat ctgttttgac tgttggaagg cagagacagc 120
acaagattag cctgttctgc tgaagtcata gttcaacctt aatgaacgtc aaggaataaa 180
agactgtaca tatgaggtgt gtagtattag cgtgcttgct cgag 224

<210> 2471
<211> 257
<212> DNA
<213> Homo sapiens

<400> 2471
gaattcgcgg ccgcgtcgac aaattatttt ttatttcaat cattttaaat acattccttc 60
tactggcatt cacctgttag attcccgccc cccccccgc ccctgctttt caactaatat 120
agttcctact taaaagacag gatacattgt tttcctctac ctacttattt tcagagtgag 180
gagttattgt tagaagtatt cactcatctt taatgaaatt gttttgttca tcagattatt 240
tcaggagagc cctcgag 257

<210> 2472
<211> 231
<212> DNA
<213> Homo sapiens

<400> 2472
gaattcgcgg ccgcgtcgac gggagtttcc tcattaaaag gaatccagtt atttgaccgt 60
ataaaattat ttggaatgcc tgctaagcat cagcctgatt tgatatacct ccgttatgtg 120
ccgctctgga aggtccatat tttcacagtc attcagctta cttgtttggt ccttttatgg 180
gtgataaaag tttcagctgc tgcagtggtt tttcccatga tggttctcga g 231

<210> 2473
<211> 179
<212> DNA
<213> Homo sapiens

<400> 2473
gaattcgcgg ccgcgtcgac gtctggggga gcatgattgt tctgggcaca caggccctgg 60
ttgaagtttg ccttgtctgc agagttctgc tgcatgtaac ggaacagaga agccatacct 120
tgtttctcag atggggtggt accaaagaac tggctgagga tgtgggtggt gacctcgag 179

<210> 2474
<211> 423
<212> DNA
<213> Homo sapiens

<400> 2474
gaattcgcgg ccgcgtcgac aaaatctgag ggtatgatgt acaactttta cacatgatac 60
atgaacttta acacaattgt gaattagagc ccaacttagt tcaagacaaa atgtatctcg 120
aacacttctt ttcttcttaa aatatcagca ataatctagt atccaaagta ggagattcat 180
catcacctta agacttctta gcagtttttc ttgtgtgaca aaatatttta cacctttatt 240
tgagaacaaa ggaagattat gagagaccac tagaaatgga attttagcat ttcgaaggaa 300
tttttatatg acgttgttcc tcttggcaat tcagaaagca ctccaggaat ttgtctagtt 360
agtgttttgt atatattaga atctgtgtct atttcctttg taaaaaaata cgaagacctc 420
gag 423

<210> 2475
<211> 226
<212> DNA
<213> Homo sapiens

<400> 2475
gaattcgcgg ccgcgtcgac ttctagacct gcctcgagcc ctgccctttt caccttatct 60
gctgttattc aaacccacaa atatttatta agcccctgct ggctaacttc tcccacccca 120
acaaataaac acactctaat caagccaatc tccctattgt tcccttgaac ttgtcgggct 180
tttccttttt atgcttttgt tcatgctttt tctactccca ctcgag 226

<210> 2476
<211> 273
<212> DNA
<213> Homo sapiens

<400> 2476
gaattcgcgg ccgcgtcgac caaaaataca tcacagcctt ctcaaacagc tcaagcaata 60
tattgtatat tgccatatcg tctggtgaaa gggttaaatt acttcacctc ttgcactttt 120
agatgcaaat cagtttttca tttctgtaat agaaaattat tcacgtattt ttacatcatt 180
tgtttttcct gaccagtatt taaaaccaaa aggatattct gaaaaatggc caacaatttt 240
tttagaagta gcatcccaag cagcgaactc gag 273

<210> 2477
<211> 245
<212> DNA
<213> Homo sapiens

<400> 2477
gaattcgcgg ccgcgtcgac agatttcata atatactagc ttctgttgga atgtatcagg 60
gattaggttg tttattttta tttttattta ttttttgggg gttcggagtc tcgttctgtc 120
tcccaggctg gagtgcagtg gtgccatttc ggctctctgc aacctccacc tcccaggttc 180
aagtgattct cctatctcag ctactctgga ggctgaggga gtatggggca ggagaattgc 240
tcgag 245

<210> 2478
<211> 268
<212> DNA
<213> Homo sapiens

<400> 2478
gaattcgcgg ccgcgtcgac ttactgcatt gtttgtcact gggaaccaaa ggataaaaga 60
gtagcataag ctgctgaatg ttgccatatt aaaggagaga acttggtaac gtgaagtatt 120
tctcattgaa atgctttccc ttttgtatat agccagtgtt aaatccttaa atgcaataca 180
gcctctgatt attgagcttc ctcttaaaaa gattttttta ttttatgtag ccaacattgc 240

agtactgtat gctcaaacac aactcgag 268

<210> 2479
<211> 224
<212> DNA
<213> Homo sapiens

<400> 2479
gaattcgcgg ccgcgtcgac cctaaaccgt cgatctaatt acagaacatt ttaatcactc 60
ggaaaagaaa tctgtatcca tccattaagc agtcattgcc tgttcccctt gaccccagcc 120
cccggcaacc actaatctac tttctgttgc tattgatata cctgttctgg acattttaca 180
taaatggaat tatacaacat atgatgtttt tatgtgtgct cgag 224

<210> 2480
<211> 225
<212> DNA
<213> Homo sapiens

<400> 2480
gaattcgcgg ccgcgtcgac gaacaagggt tctttgctaa tggagcctat attctggtgg 60
aggattggac acctgaacac acagatgtct gcagatttcc tggccttcac cttgtcctat 120
gtcaaagact ccattactgc taaagtactg tttatcttaa taatggtgac ttttgttgtt 180
gttttttttg agtcagggtc tcgctctgtt gcccaggacc tcgag 225

<210> 2481
<211> 226
<212> DNA
<213> Homo sapiens

<400> 2481
gaattcgcgg ccgcgtcgac gggcgcccaa cagcttttat ccccattctt agagcatatt 60
ctttattata atgattatcc aacatatttc tttaatttta atacaaaaaa tacatcattt 120
aatttttgtt acatatgaac attcattttt aaatgctcag cctcaagtgc aggcattttt 180
gagtggcctg attacatatt cctcccacag caagtccgat ctcgag 226

<210> 2482
<211> 209
<212> DNA
<213> Homo sapiens

<400> 2482
gaattcgcgg ccgcgtcgac agcaccagtt gattcggtgg ttttgaggaa aatttgggag 60
gcaaataagt tataatataa attgctttat tgttgaactt actactcagt cactgagaat 120
ttctattaat gtccttctct cgtagttcaa atatcaacct ttcccttcct atctatagga 180
ttctattgtt atttggtgtc atactcgag 209

<210> 2483
<211> 283
<212> DNA
<213> Homo sapiens

<400> 2483
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgaatt ctagcctccc gagtagctgg 60
gattacaggc atgcgccact acgcctggct agttttgtta tttttagtag agacgggatt 120
tctccgtgtt ggtcaggctg gtctcaaact cctgacttca ggtgatccac ccacctcagc 180
ctcccaaaat gctgggatta caggcatgag ccaccttgcc cagccttttt ggaaaaattc 240
taacaatcca ccaaaattta aacttgaccc tgatccactc gag 283

<210> 2484
<211> 390

<212> DNA
<213> Homo sapiens

<400> 2484
gaattcgcgg ccgcgtcgac acaattttta aaaaatagtt caatgcccag aaaatcccgc 60
ccatgctaca caagacgaga ttctctgcat gcacagcgct gggtgggaga acccagaggc 120
agctgtgagg acaggggcca cggcagccaa tgtggcctcg tgaggagtga ggctgggagc 180
cagggtgggc ctctgagctc ctcctcaacc cagaaggtgt gaggccctct ccacttgcac 240
acgtaccttt cacccaaaag aaaaagactg gcgaaaacaa cggcccaggt caccggacac 300
gccccggctt tggacagccc accttgactg cattgcctca cgctcgacat tttacagcgt 360
gagacttcgc aaagtgagcc aggtctcgag 390

<210> 2485
<211> 102
<212> DNA
<213> Homo sapiens

<400> 2485
gaattcgcgg ccgcgtcgac cgtcgattga aaaactctag ccaacaagac aactcttctc 60
gggaaagtcc cagcttagag gatgaggaga ctatatctcg ag 102

<210> 2486
<211> 216
<212> DNA
<213> Homo sapiens

<400> 2486
gaattcgcgg ccgcgtcgac aataaaacta agctctgatt ctgaaattgt acaacaaagc 60
atgcaaacat cagatggaat attgaatccc agcagcggag gcatcaccac tacttctgtt 120
cctggaagtc cagatggtgt ctttgatcaa acttgcgtag attttgaagt tgagagtgta 180
ggtggtatag ccaatagtac aggtttctcc ctcgag 216

<210> 2487
<211> 186
<212> DNA
<213> Homo sapiens

<400> 2487
gaattcgcgg ccgcgtcgac cagcccatca ttttctaaga aatactacag gatgcttgaa 60
caatcccttg attttcctta taactgcatt atttcactag agttttttc ccccagggaa 120
atacctttgc tttccctttt catccatatt ttgatcctgg ataaggtctc tacgtgtgcg 180
ctcgag 186

<210> 2488
<211> 230
<212> DNA
<213> Homo sapiens

<400> 2488
gaattcgcgg ccgcgtcgac gtaagttttt cacagtgtat taggttagtt ttaaatagca 60
cagggccaaa cggagagttt taagttatcc agtgtgttat tataccactt aatttactg 120
tgtgtaagac ttgactttta acaagtaaag tgagccatca agccttatta aagatcaatt 180
tccacattgc ttgcccatat atgttgtatg tattgttcct tgtgctcgag 230

<210> 2489
<211> 276
<212> DNA
<213> Homo sapiens

<400> 2489

gaattcgcgg ccgcgtcgac aacacatttt ctttgacgtt taaacctcat tgaattggat 60
tcctgttact tgcagtcaaa agcatcctga caaatacagc cccaatggt gcaactgcta 120
catctccttg ctacaagtgg ccacgtcctg ctcaaagccc tgctctgcct cccctgcacc 180
ctttgcctaa cttcaatgcc ctctaggaca tgggccctgc ccacaggtcc tgtcttcctc 240
cctggcttca cttcttgcca tatccctaat ctcgag 276

<210> 2490
<211> 123
<212> DNA
<213> Homo sapiens

<400> 2490
gaattcgcgg ccgcgtcgac gtctgagatg cttttctcca ccttggcatt cctctccctg 60
gtggcaactg agagctctgt agaccaccta catgcttatc aaaaacactc cgtcatcctc 120
gag 123

<210> 2491
<211> 387
<212> DNA
<213> Homo sapiens

<400> 2491
gaattcgcgg ccgcgtcgac gtggggtgtc aaatacttct gaatatttcc agtgtttctt 60
tgtttgttct tacttttctt ttcagacttg ggtgtaactg gatcagattt tctggaattc 120
aagggagaag ccgagatact tccctcacag aaattgttaa tatcaatgct tagctttctt 180
gccagttcct catcactttt cagttgttct tccatcgctc ttcgcctttt ttctgcctgt 240
ctttttttcct cttcttcctc ctctgccaac aacctctgta tgtattcttc actggctttg 300
ttttcttctt cctcgctggc ccgtcgctct gccgccacct tgcttatttc ctcttcatat 360
tctcttctca gttccccagg tctcgag 387

<210> 2492
<211> 201
<212> DNA
<213> Homo sapiens

<400> 2492
gaattcgcgg ccgcgtcgac ctagagtatg aagaattgca aacactttta tctacctctc 60
ctggctttcc tgatcctaat ctgctgcaaa actttgagta aaaccatctc tgtctccaat 120
tccagcagca atcaaagtgt ggccctgatc aacagcacca gcctcacctt ggaatttatt 180
aaatatgcaa atgacctcga g 201

<210> 2493
<211> 334
<212> DNA
<213> Homo sapiens

<400> 2493
gaattcgcgg ccgcgtcgac agaagaactt ccttattaac tattacaata ggatcaaaga 60
ttcttgtgtg aaagctgaca aaatgaccag atctcataaa aatgttgccg atgactatat 120
ccacaccgca gcctgcttac atagcctggc tttagaagag cccacagtca tcaaaaagta 180
cctattgaag gttgctgagc tatttgaaaa actaaggaaa gtagagggtc gagtttcatc 240
agatgaagat ttgaagctaa cagagctcct ccgatactac atgctcaaca ttgaagctgc 300
taaggatctc ttatacagac gcaccagact cgag 334

<210> 2494
<211> 210
<212> DNA
<213> Homo sapiens

<400> 2494

gaattcgcgg ccgcgtcgac cgagagagaa gaagagaaaa tgaaagcagc tggttttgca 60
gaagtgtgtg tcgcatgcgc cagttgggcc tggaccctcc tgtgtccatc cctgttcccc 120
caggggctct atcagcccct gtaccccaca ctgccctctg aagacaacac aggctcctgc 180
ttccacctcg cccccaccgg tgtcctcgag 210

<210> 2495
<211> 280
<212> DNA
<213> Homo sapiens

<400> 2495
gaattcgcgg ccgcgtcgac gccatagata ccatacagta aacatcactc ttttaaaaaa 60
tattttttat ttcggcataa tttcagagtt ttacaaaagt tgcaggaata gtacaaagaa 120
ttctcttcac ttggatacct aaatgttaat attttactac atttgcttta tcctttttctt 180
tctctgtaat ttgtatttga accatttgaa agtaagtagc aggccgggcg ccgtggtggt 240
ggctcacgcc tgtaatccca gcactcaggg cgcgctcgag 280

<210> 2496
<211> 695
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (338)

<400> 2496
gaattcgcgg ccgcgtcgac gtatttgtag cgcagaaggg gacgtaaagt ggaggagagc 60
tgtagcagaa atgaggcggg tgccatcaca tggctgagtt attccttcct ccgtgagcct 120
ccgtttcctc atctgtgtga tggggatata gtaattctta tatagattga tgaggattaa 180
gtgagatttt gtatattgat agaatttagc atagcactgg ccacagagta gatgtgtaat 240
aagtggtagt tttcttcttt tctgtgattc tcatttttaa gaagaatgac ttacttgatt 300
tttttaaaat aaaaattgta taggtattta tttttagnaa ctcaagccat accaggaaat 360
accaaaaaaa aaatctaata aatacctcca agatcccacc attgagaaat aatcagcgtc 420
agcagtttga tgtccagcaa cccagacatc tctttctgca cgcctataca tgttaaaggc 480
tgattgggca tcagtggata gatctatagg aagaaatgga attatactat aatgctgttt 540
ttaagaaaaa caagatatgc acaatataat tttatttgaa tttaaccaga aaaaagagac 600
actaaatgaa tctaaaggaa ttattgaact tgagacattt ttctttttctt ttctcttttt 660
ttgagactga gtctcactct gtcacccaac tcgag 695

<210> 2497
<211> 213
<212> DNA
<213> Homo sapiens

<400> 2497
gaattcgcgg ccgcgtcgac cctaaaccgt cgattgcatt cttgagatat acctcacttg 60
gttttgctac aggtattttg aagcttttat gaattgcctg cccttttttta aggtgaaatg 120
ttctttgctt cctataatgc tatgttatgg tctactttgc ctgatattaa tgccattgtt 180
tttttaatct atgtgtttga atggttactc gag 213

<210> 2498
<211> 221
<212> DNA
<213> Homo sapiens

<400> 2498
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24206

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :C07K 14/435; C12N 15/12
US CL :530/350; 536/23.5
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 530/350; 536/23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EMBL, Genbank, EMBLest, Genbankest, USPAT issued
search terms corresponding to SEQ ID NO: 252, 1538, 1598, 1734, 1881, 2012, 2104, 2114, 2183, 2348

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA743929, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 23 January 1998 positions 19-121 relevant to positions 126-24 of instant SEQ ID NO: 2183.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda MD), Accession Number AF034544, MOEBIUS et al., 'Direct Submission,' 06 march 1998 positions 354-634 relevant to positions 2-282 of instant SEQ ID NO: 2114.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda MD), Accession Number AA298572, ADAMS et al., 'Initial assessment of human gene diversity and expression patterns based upon 83 million nucleotides of cDNA sequence,' 18 April 1997, positions 49-229 relevant to positions 21-201 of instant SEQ ID NO: 2012.	4, 8

[X] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
12 FEBRUARY 2000	29 FEB 2000

Name and mailing address of the ISA/US	Authorized officer
Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	JOHN S. BRUSCA
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number R24770, HILLIER et al., 'The WashU-Merck EST Project,' 20 April 1995, positions 1-209 relevant to positions 32-240 of instant SEQ ID NO: 1880.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA632004, NCI-CGAP, 'National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index,' 28 October 1997, positions 172-405 relevant to positions 257-24 of instant SEQ ID NO: 1538.	4, 8
X	Database Genbank on STN, National Center for Biotechnology Information (Bethesda, MD), Accession Number AA027135, HILLIER et al., 'WashU-Merck EST Project,' 09 May 1997, positions 1-343 relevant to positions 371-29 of instant SEQ ID NO: 252.	4, 8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24206

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-8 SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348

Remark on Protest
☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/24206

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING
This ISA found multiple inventions as follows:

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack Unity of Invention because they are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for more than one species to be searched, the appropriate additional search fees must be paid. The species are as follows:

The nucleic acids of SEQ ID NOS: 1-2500 and the corresponding polypeptides encoded by the nucleic acids of SEQ ID NOS: 1-2500.

The claims are deemed to correspond to the species listed above in the following manner:

All claims are drawn to the species indicated above.

The following claims are generic: 1-8

The species listed above do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species is drawn to a different nucleic acid or corresponding encoded polypeptide. There is no disclosed relationship between the sequences of each individual species.

Restriction to a single species has been waived sua sponte and the Applicants are permitted to have ten species searched without payment of additional fees. The Applicant's representative Suzanne Sprunger elected telephonically on 01 February 2000 to have the sequences corresponding to SEQ ID NOS: 252, 1538, 1598, 1734, 1880, 2012, 2104, 2114, 2183, and 2348 searched.